OAKLANDS FARM SOLAR PARK

Applicant: Oaklands Farm Solar Ltd

Environmental Statement
Appendix 6.14 – Arboricultural Survey Report
October 2024
Document Ref: EN010122/D4/6.1/Appx 6.14
Version: Deadline 4 - Clean

Planning Act 2008
Infrastructure Planning (Application: Prescribed Forms and Procedure) Regulations 2009 - 5(2)(a)

ARBORICULTURAL IMPACT ASSESSMENT

Oaklands Farm Solar Park (NSIP)

February 2024

Revision A

Barton Hyett Associates
Arboricultural Consultants

Summary table		
Site Name:	Oaklands Farm Solar Park	
Project reference:	4844	
Site Address:	Coton Road, Walton upon Trent, Walton-on-Trent, South Derbyshire	
Nearest Postcode:	DE12 8LP	
Central Grid reference:	SK 22845 16818	
Local Planning Authority:	South Derbyshire District Council	
Relevant planning policies:	Local Plan Part 2: Policy BNE7 Trees, Woodlands and Hedgerows. South Derbyshire District Council Climate & Emergency Strategy (Rev 2 // April 2021)	
Statutory Controls:	**Tree Preservation Order**	**Conservation Area**
	Yes SDDC TPO number 122 SDDC TPO number 119	None
Soil Type: (Source: BGS online soils map © NERC 2023)	**Superficial/Drift**	**Bedrock**
	Thrussington Member - Diamicton	Edwalton Member - Sandstone
Topographical Survey:	BWre21-OSF_PD_V2	
Module Layout:	BWre-OAKF-PD-V03-01_module layout - OSF1_rev n_reduced footprint	
Notes:	Nearby Ancient Semi Natural Woodland (ASNW) - (W1) Grove Wood	
Report author:	Richard Hyett *MSc, BSc (Hons), MICFor, MArborA*	
Date of first issue:	02.02.2024	
Revision A:	13.08.2024 (Amendments to hedgerow loss)	

Barton Hyett
Arboricultural Consultants

REPORT CONTENTS:

SECTION 1: SUMMARY, SITE DETAILS & SURVEY FINDINGS

SECTION 2: TREE SURVEY & CONSTRAINTS PLAN

SECTION 3: COMBINED TREE RETENTION/REMOVAL & PROTECTION PLAN

SECTION 4: TREE SURVEY SCHEDULE & SITE IMAGES

SECTION 5: METHODOLOGY

SECTION 6: DESIGN GUIDANCE AND GENERIC ADVICE

SECTION 7: PRINCIPLES FOR TREE PROTECTION ON DEVELOPMENT SITES

Arboricultural Association Technician Member

Institute of Chartered Foresters registered

1. INTRODUCTION

1.1. Barton Hyett Associates Ltd have been instructed by Baywa to survey and inspect trees that could affect, or be affected by, the Proposed Development on the land known as Oaklands Solar Park ('The Site').

1.2. The Proposed Development comprises a solar farm with an associated Battery Energy Storage System (BESS). It would have a generating capacity of over 50MW and would be situated on 191 hectares of land at Oaklands Farm to the south-east of Walton-on-Trent and to the west of Rosliston in south Derbyshire. The solar farm itself, comprising photovoltaic panel arrays, a central electricity substation and BESS together with access, landscaping and other works would be located on 135 hectares of agricultural land currently in use for arable production and grazing. A high voltage underground electricity cable would then run through land at Fairfields Farm and Park Farm to the north to connect the solar farm to the national grid via an electricity substation located at the former Drakelow Power Station which sits south of Burton-upon-Trent

1.3. This report, in compliance with BS5837:2012 '*Trees in relation to design, demolition and construction - recommendations*'[1] is required to support the Environmental Statement prepared to accompany a submission to the Secretary of State for the Department of Business, Energy and Industrial Strategy in order to gain permission via a Development Consent Order. The Examining Authority (EA) is The Planning Inspectorate (PI).

1.4. The scope of the instruction was to to visit the Site and to survey relevant trees, hedges and woodlands in accordance with BS5837:2012 and to prepare the following information:

- Tree survey summary
- Schedule of tree survey data
- Tree survey plan: an updated topographical survey showing preliminary tree constraints
- Advice on layout in order to limit arboricultural impacts

1.5. With reference to the above information and BS5837:2012, Barton Hyett Associates was also instructed to assess the impact of the Proposed Development on the arboricultural resource within the the Site and to produce the following:

- Arboricultural impact assessment
- Tree Retention & Removal Plan
- Tree Protection Plan

[1] BSI Standards Publication Trees in relation to design, demolition and construction–Recommendations, Fourth (present) edition, April 2012

2. SUMMARY SITE DESCRIPTION

2.1. The land within the Site comprises of irregularly shaped agricultural fields that are associated with Oaklands Farm and they will be referred to as Oaklands Solar Farm.

2.2. The proposed Oaklands Solar Farm is located circa 15 miles to the south of Burton-on-Trent and circa 1 mile east of the village Walton-on-Trent.

2.3. The location of the Proposed Development is rural, being bound by agricultural fields woodland parcels and roads including Coton Rd, Catton Lane to the south and Rosliston Rd, Burton Rd and Walton Rd to the north.

2.4. Access to the northern parcel of land was gained via Park Farm and for the southern parcel via Oaklands Farm. One footpaths run through the the Site, this is the Cross Bitain Way that runs east from Rosliston.

3. TREE SURVEY FINDINGS

3.1. A total of 321 trees, groups of trees and hedgerows were identified and surveyed. These are summarised in terms of their quality in accordance with the recommendations of BS5837 below, and shown in more detail on the Tree Survey and Constraints Plan (**Section 2**) (drawing reference: BHA_4844_01) and within the Tree Survey Schedule (**Section 3**).

3.2. Some survey items are associated with a wider survey area before the Order Limits were set following development of the Proposed Development design. These survey items have been faded and greyed out to enable the plans to be simplified and read more easily.

	Total	A - High quality trees whose retention is most desirable.	B - Moderate quality trees whose retention is desirable.	C - Low quality trees which could be retained but should not significantly constrain the proposal.	U - Very poor quality trees that should be removed unless they have high conservation value.
Trees	**166**	28	104	31	3
Groups	**61**	5	43	13	-
Hedgerows	**86**	-	71	15	-
Woodlands	**8**	3	5	-	-
Total	**321**	**36**	**223**	**59**	**3**

Table 1: Summary of arboricultural features of each BS5837 quality category

4. KEY ARBORICULTURAL FEATURES

4.1. As can be seen from the summary table, the vast majority of the arboricultural resource is either of high or moderate quality and therefore desirable for retention.

4.2. The Site has many mature English oak populating the field boundary hedgerows and woodland edges. This is fairly typical for agricultural land of this nature and in this location.

4.3. There are 28 high quality (Category A) trees, most of which are English oak (*Quercus robur*) with some common lime (*Tilia x europaea*), horse chestnut (*Aesculus hioppocastanum*) and common ash (*Fraxinus excelsior*) . There are also three high-quality woodlands that are populated by many mature trees and have a good species diversity. These trees and tree features are considered to be particularly good examples of their species and are all of excellent form and condition. Many of these trees are prominent within the Site and the immediately surrounding landscape.

4.4. Woodland (W8) within Drakelow Park and the now decommissioned and demolished Drakelow Power Station is also considered to be high quality (Category A). This was not surveyed in detail as access within the wider woodland, managed by National Grid, was not available. However, it was possible to assess this as mature and well established mixed species woodland that is protected by South Derbyshire District Council (SDDC) Tree Preservation Order (TPO) number 122.

4.5. South Derbyshire District Council (SDDC) Tree Preservation Order (TPO) number 122 also covers W9, W10, G64, G62 and T167, T168 and T169. These trees, tree groups and woodlands are for the most part less mature and of a lesser quality (Category B and C) and some areas within this section of the woodland have historically been cleared to maintain the way leave for the overhead High Voltage (HV) wires.

4.6. Mature horse chestnut trees T34 to T37 and common ash T38, along with G15, G16, G17 and G18 (also horse chestnut) are prominent trees located at the Site boundary, parallel to Burton Rd. These trees are all protected by SDDC TPO number 119.

4.7. Common lime T30, English oak T32 and English oak T86 were identified as 'veteran' trees due to their large stem diameters, very large cavities in main stems, fungal associations, large diameter branch stubs and extensive deadwood habitat. All of the aforementioned characteristics provide significant niche habitats that are considered defining features of a 'veteran' tree.

4.8. Crack willow T59, English oak T56 and English oak T57 were identified as 'ancient' trees due to their exceptionally large stem diameters and presence of features described above. This is a good indicator of their notable maturity, these trees are significantly older than most other trees within the The Site.

4.9. Grove Wood (W1) is designated as Ancient Semi-Natural Woodland (ASNW) within DEFRA's online mapping resource; MAGIC. The woodland has many mature English oak trees present at the woodland edge/site boundary.

4.10. Given the presence of ASNW and the presence of veteran and ancient trees located outside of the ASNW, it will be necessary to consider paragraph 186c of the National Planning Policy Framework 2023 (NPPF) and the associated Standing Advice produced by the Forestry Commission and Natural England[2].

4.11. The National Planning Policy Framework 2023 (NPPF) states in paragraph 186c that:

'development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused unless there are wholly exceptional reasons, and a suitable compensation strategy exists'.

4.12. Potential detrimental impacts from development upon veteran and ancient trees might include, but are not limited to, damage to roots and understorey fauna, damage to or compaction of soil around the tree roots, and changes to the water table or drainage within the trees rooting environment.

4.13. The Forestry Commission and Natural England standing advice within the Planning Policy Guidance (PPG) 'Ancient woodland, ancient trees and veteran trees: protecting them from development'[3] is a material planning consideration. In reaching a planning decision, the potential impacts should be assessed, and the process of avoid, mitigate or compensate for identified impacts adopted.

4.14. A key method of mitigation is the use of a 'buffer zone'. In accordance with the standing advice, an additional veteran/ancient tree buffer with a radius of 15 times the stem diameter has been applied to relevant trees and shown as an orange dashed circle around each veteran/ancient tree on the tree survey and constraints plan, as well as specified the tree survey schedule. Similar buffers in line with Standing Advice have been applied to areas of ASNW.

---

2 Department for Levelling Up, Housing and Communities, National Planning Policy Framework 2023, Paragraph 186

3 Ancient woodland, ancient trees and veteran trees: advice for making planning decisions, Natural England & Forestry Commission, Jan 2022 / (https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences)

5. PROPOSED DEVELOPMENT

5.1. The Development Proposal is for the construction and operation and of a large scale solar farm plus energy storage facility. The proposed layout is shown on drawings titled Figure 4.1a and b: *Illustrative Concept Design* and Appendix 1.3: *Work Plans.*

5.2. The description of the Proposed Development is provided below:

> *'The Proposed Development comprises a proposed solar farm with an associated Battery Energy Storage System. It would have a generating capacity of over 50MW and would be situated on 191 hectares of land at Oaklands Farm to the south-east of Walton-on-Trent and to the west of Rosliston in south Derbyshire. The solar farm itself, comprising photovoltaic panel arrays, a central electricity substation and Battery Energy Storage System together with access, landscaping and other works would be located on 135 hectares of agricultural land currently in use for arable production and grazing. A high voltage underground electricity cable would then run through land at Fairfields Farm and Park Farm to the north to connect the solar farm to the national grid via an electricity substation located at the former Drakelow Power Station which sits south of Burton-upon-Trent'*

6. IMPACT ASSESSMENT (SOLAR PARK)

6.1. The impact assessment considers the effects of any tree loss required to implement the Proposed Development as well as any reasonably foreseeable potentially damaging activities proposed in the vicinity of retained trees. This is undertaken with reference to BS5837:2012 and considering the nature of the Proposed Development. Actual and potential impacts can include tree removal to facilitate the development, soil compaction in close proximity to trees, and direct impact damage to the canopy and roots of retained trees from construction activities. A summary of anticipated impacts resulting from the Proposed Development is provided below.

Trees and hedgerows to be removed

6.2. The Proposed Development (Solar Park) will not require the complete removal of any individual trees, or the removal of entire tree groups, woodlands or hedgerows. Where possible the construction and operation tracks have been routed to utilise existing gaps within tree groups and hedgerows where available. The positioning of solar arrays and associated equipment such as inverters/transformers, substation, energy storage systems, fencing, CCTV and temporary construction compounds can be located sufficiently distant from the Sites's arboricultural resource and the associated Root Protection Areas ('RPAs').

6.3. For the operation and maintenance tracks it will be necessary to create new openings of 3.5m in width through H89 south (Category C), H70 (Category B) and some widening of the existing gaps (by 2-3 meters) in H53 (Category B) and H79 (Category B). To allow for the required visibility splay at the Coton Road junction it will also be necessary to remove circa 120m of H50 north and circa 60m of H41 north (both Category B).

6.4. For the construction track it will be necessary to create new openings of 6m in width through H89 north, H28, H44 east (all Category B hedgerows) and H25 (Category C), and 10m of H66 (Category B). Two 6m sections of tree group G25 (Category B) and a 6m section of G27 (Category B), which consists predominantly of ash, alder and willow trees that are growing on the banks of the watercourse, will also require removal. Replacement planting in these location can be provided post construction.

6.5. Where the cable route connects to the substation it will be necessary to remove circa 5m of hedgerow H45 (Category B).

6.6. The total hedgerow removals required to establish the construction and maintenance tracks will be circa 232 linear meters. Plus the two circa 6m section of the tree group G25 (likely to equate to just one or two early mature to mature willow, alder or ash trees within each section).

6.7. It is important to clarify that the removals, as shown on the Tree Retention/Removal Plan (drawing reference: BHA_4844_02) in **Section 3,** illustrate a potential corridor within which the construction track (and underground cable) will be routed. Therefore the whole of the corridor is shown as tree group or hedgerow removal when in reality this will equate to 3.5m or 6m spans only. The aim during construction and installation of the track and underground cable is to keep tree group and hedgerow removal to an absolute minimum. All individual trees within the corridor will be worked around and retained with RPAs being kept free of development.

Summary

6.8. The Proposed Development has been carefully designed in order to limit arboricultural impacts in terms of hedgerow and tree loss. Overall, considering the limited tree and hedgerow loss the proposal is acceptable from an arboricultural perspective. The circa 232 linear metres of proposed hedgerow removal, two 6m sections of tree removal within G25 would and one 6m section within G27 constitute a low overall potential negative impact on the arboricultural resource. This loss can be readily mitigated through the new tree and hedgerow planting that is proposed within the Landscape Ecological Management Plan (LEMP)

6.9. The aforementioned hedgerow and tree group removals are illustrated on the combined Tree Retention/ Removal Plan (BHA_4844_02) in **Section 3.**

Impacts on retained trees

6.10. The proposed solar farm development is not anticipated to result in further significant arboricultural impacts on retained trees, tree groups or hedgerows. The construction and operation tracks, positioning of solar arrays and associated equipment such as inverters/transformers, substation, energy storage systems,

transformers, fencing, CCTV and temporary construction compounds are largely remote from the remainder of Site's arboricultural resource and the associated Root Protection Areas (RPAs). This is due to the proposed layout responding to the arboricultural constraints that have been identified.

6.11. The Proposed Development utilises an existing farm access track into the Site, and existing field access points within the Site. Where the construction track enters from Walton Road there is a well established hard surfaced farm access track. It may be necessary to carry out some minor pruning (crown raising to provide circa 6m of ground clearance) along this avenue of trees (T1 -T18 and G1-G8) in order to ensure that adequate clearance is provided for all site traffic. However, the track is well established and currently used to access the existing farm complex so adequate ground clearance is likely to already exist for the most part. Should improvements to the wearing course of this track be required the new construction will need to utilise a 'no dig' method for construction (e.g. possibly utilising a 3d cellular confinement system). If any re-surfacing works are carried out then this should not involve excavation beneath the existing sub-base and works will require supervision from the project arboriculturist.

6.12. The western access off Walton Road will require some widening at its Northern end to allow site traffic to achieve the necessary turning capabilities as they turn into the Site from Walton Road. This will require the installation of a suitably specified cellular confinement system to be installed via a 'no dig' installation method. In order to preserve the structure of the cellular confinement system from regular use by heavy vehicles it will be necessary to cover the cellular confinement system with interlocking ground boards. The installation of this system will require supervision from the project arboriculturist.

6.13. It will also be necessary to establish some new access, temporary construction and operation/maintenance tracks within the Site interior. The construction and operation tracks are to be constructed as per the below specification/cross sections (See Figures 1 and 2) below taken from the drawing titled '*04_detail_gravel road_3.5m ' and '04_detail_gravel road_6m*':

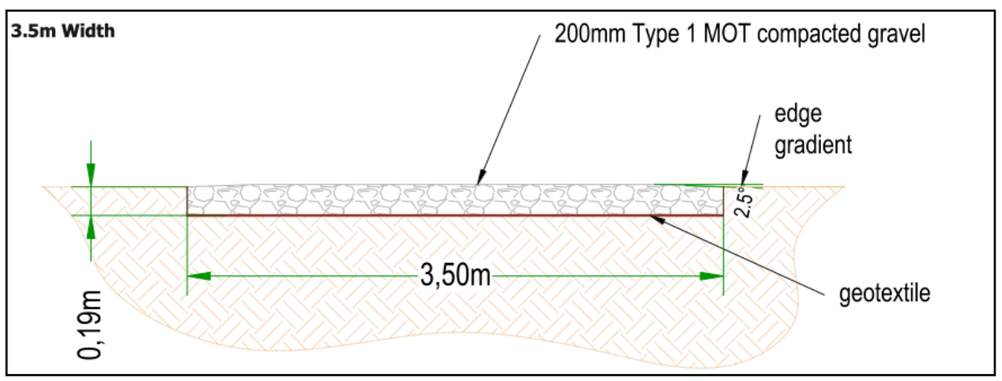
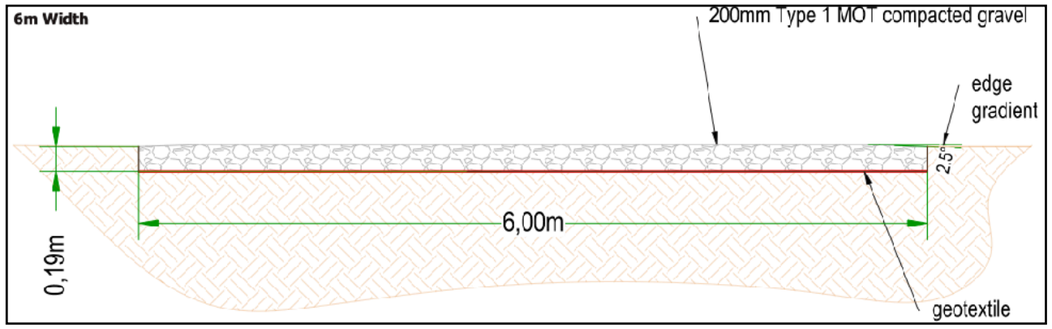


Figure 1: 3.5m track cross-section

Figure 2: 6m track cross-section



6.14. With the track installation remaining largely outside of RPA's negative arboricultural impacts associated with the excavation of the upper soil level and compaction can be avoided. In the few instances where installation of tracks will result in a minor incursion into RPAs it is anticipated that due to regular ploughing of the arable fields in theses locations, tree roots are very unlikely to be present within the upper soil horizons (down to a typical plough depth of 300-400mm).

6.15. The temporary construction track will require a bridge be constructed over a watercourse in the vicinity of tree group G25. As mentioned previously within paragraph 6.4, a 6m section of tree group G25 (Category B) which consists predominantly of ash, alder and willow trees that are growing on the banks of the watercourse will require removal. The tree identified as having bat roost potential within the ecology survey in this section of the corridor (G25) will be retained by the bridge and track being routed to the south of this tree.

6.16. In order to avoid the tracking of plant/machinery through the RPAs of trees located within field boundary hedgerows, a Construction Exclusion Zone (CEZ) has been designated in-between the perimeter fence and most hedgerows. This is due to the presence of some significant and mature high and moderate-quality trees at the field boundaries with significant RPAs that extend into. It will therefore be necessary to install the perimeter fence from inside the Site in order to avoid working within the CEZ. Please refer to the Tree Protection Plan in **Section 3** (drawing reference: BHA_4844_02).

6.17. All ancient trees, veteran trees and areas of ASNW are remote from the built elements of the Proposed Development and their RPAs and buffers will be kept free from any development.

Summary

6.18. In relation to retained trees, the Proposed Development is feasible from an arboricultural perspective and if carefully implemented with the required arboricultural supervision there would be only a low potential for minor negative impacts upon the retained trees.

7. IMPACT ASSESSMENT - CABLE CONNECTION TO DRAKELOW SUBSTATION

7.1. Some tree removals are anticipated to be required within the main site in order to facilitate the installation of the proposed cable connection (to grid) from the main site to the Drakelow substation. The necessary tree removals are assessed below.

7.2. To ensure minimal impact upon the roots of trees adjacent to the cable route, it is proposed that the final trench route should avoid RPAs where possible. Where it is achievable the cable trench has already been routed within open fields or at the field margins in order to avoid the significant arboricultural constraints.

7.3. A 6m section of H87 (Category B) will require removal to allow for the cable installation.

7.4. Where the cable passes over the brook from east to west through G25 the removals have already been assessed in association with the construction track (paragraph 6.4), as the cable will be incorporated into the design and installation of the bridge. Just north of this it will be necessary for the cable to cross the brook through G27 (blackthorn and hawthorn scrub). Two 6m sections of G25 and a 6m section of G27 will therefore require removal to allow for cable installation to be carried out. This will equate to a low arboricultural impact on the overall arboricultural resource of the Site.

7.5. Where the cable route crosses Whalton Road a circa 3m section of H2 (Category B) will require removal. The removal of tree stems within the hedgerow above 150mm will be avoided by local adjustment of the routing of the cable trench.

7.6. North of the Walton Road, within the woodland to the south of Drakelow substation, it will be necessary to establish a route for the point of connection with the substation through the woodland (W9) and along the northern edge of W10). Every effort has been made to assess the trees and woodland here in order to limit and control the potential for negative arboricultural impacts but It has been considered to be necessary to assess a worst case scenario in relation to tree loss. This is therefore shown as a circa 16m wide corridor of woodland between Walton Road and Drakelow substation requiring removal. Where achievable mature high quality trees and trees that have been identified as having bat roost potential are to be retained.

7.7. When the exact routing of the cable connection with National Grid has been agreed and finalised a detailed Arboricultural Method Statement (AMS), schedule of arboricultural supervision, final Tree Retention/Removal Plan and final Tree Protection Plan will need to be produced in order to limit and control potential arboricultural impacts that would be associated with establishing the connection to the Drakelow substation.

7.8. For the installation of utilities (including cables), guidance is set out within NJUG Volume 4 within section 4 - How To Avoid Damage To Trees which details acceptable working methods relating to '*excavations or other works occurring within the Prohibited zone or Precautionary Zone*'.

7.9. Section 4.1 of NJUG, reinforces the role of the project arboriculturist and the requirement for arboricultural supervision to be necessary when working within RPAs: '*Wherever trees are present, precautions should be taken to minimise damage to their root systems. As the shape of the root system is unpredictable, there should be control and supervision of any works, particularly if this involves excavating through the surface 600mm, where the majority of roots develop'*.

7.10. The preferred approach is to avoid RPAs through the realignment of the proposed trench and cable. NJUG Volume 4 states: '*Whenever possible apparatus should always be diverted or re-aligned outside the Prohibited or Precautionary Zones. Under no circumstances can machinery be used to excavate open trenches within the Prohibited Zone'*.

7.11. If, due to the constraints of , the proposed cable route is required to pass through (beneath) trees groups or woodlands the preferred solution is to use trenchless techniques such as directional drilling. NJUG states that where necessary *'trenchless techniques should be used. The launch and receiver pits should be located outside the Prohibited or Precautionary Zones. In order to avoid damage to roots by percussive boring techniques, it is recommended that the depth of run should be below 600mm. Techniques involving external lubrication of the equipment with materials other than water (e.g. oil, bentonite, etc.) must not be used when working within the Prohibited Zone. Lubricating materials other than water may be used within the Precautionary Zone following consultation and by agreement'*.

Summary

7.12. The proposed gird connection is feasible from an arboricultural perspective, but would potentially result in the loss of a circa 16m corridor of woodland W9 (Category B), approximately half of tree group G62 (Category C), T168 (Category C), T169 (Category B), circa 3m of hedgerow H2 (Category B) and 6m of H87 (Category B).

7.13. This loss of canopy cover and some low potential bat roost trees will need to be assessed in more detail once the exact routing of the cable connection has been agreed and finalised with National Grid. A detailed AMS, schedule of arboricultural supervision, final Tree Retention/Removal Plan and final Tree Protection Plan can then be produced in order to limit and control the potential arboricultural impacts that would be associated with establishing the connection to the Drakelow substation. The loss of woodland canopy cover within W9 will need to be assessed and weighed against the over-arching benefits that the Oaklands Farm Solar Park will serve to provide.

8. TREE PROTECTION MEASURES

8.1. The proposed perimeter security fence (standard deer fence on timber posts) which is to be erected around the periphery of the main solar array will act as an effective tree protection barrier and should be erected before any installation works commence. This will mitigate the need to install temporary BS5837:2012 fencing along the outer perimeters of the solar arrays. However, the perimeter fencing will only protect trees

located around the periphery. The trees, tree groups and hedgerows contained within the interior of that could be impacted during the construction phase of the development, will in some instances require protection barriers.

8.2. In order for the perimeter security fence to successfully operate as a tree protection barrier and protect the Root Protection Areas (RPAs) by creating Construction Exclusion Zone (CEZ), it will be necessary to avoid the tracking of plant, machinery and driving of site vehicles in-between the security fence and trees/hedgerows. The area beyond the perimeter security fence should be considered a Construction Exclusion Zone (CEZ).

8.3. Where more significant, high-value trees (of moderate or high quality) are located within the interior, specific robust temporary tree protection barriers have been proposed (as per the specification in BS5837:2012 Figure 3.) and shown on the plan in **Section 3** (drawing reference: BHA_4844_01).

8.4. The location of the temporary tree protection fencing and the specification proposed is shown on the Tree Retention/Removal Plan and Protection Plan in **Section 3** (drawing reference: BHA_4844_01). These plans will need to be revised and updated to be based on the final, approved layout to be implemented.

9. HEADS OF TERMS FOR AN ARBORICULTURAL METHOD STATEMENT (AMS)

9.1. BS5837:2012 (Figure 1) recommends that detailed/technical design of tree protection and arboricultural methodologies should be resolved and finalised following on from the approval of the scheme.

9.2. Annex B and Table B.1 of BS5837:2012, an informative, advises that AMSt heads of terms are a sufficient level of information in order to deliver tree-related information into the planning system. The table also advises that a detailed AMS might reasonably be required as a planning condition.

9.3. A brief summary of the principles of tree protection on development sites is included in Section 7. A 'heads of terms' for an AMS is set out below:

- Project arboriculturist – schedule of monitoring and supervision
- Pre-commencement site meeting
- Sectional hedgerow and tree group removal
- Erection of perimeter security fence (phased if required)
- Erection of temporary tree protection barriers (site interior)
- Installation of construction and access/maintenance tracks
- Main construction phase
- Grid connection cable installation
- Removal of temporary tree protection barriers
- Final landscaping including tree and hedgerow planting.

10. CONCLUSIONS AND RECOMMENDATIONS

10.1. The Proposed Development has been successfully designed around the arboricultural constraints identified. The proposals will not require the complete removal of any significant trees or whole tree groups or whole hedgerows. Only the removal of 241 linear metres of hedgerow and two 6m sections of G25 plus one 6m section of G27 is proposed to be necessary to implement the design proposals.

10.2. There is the potential for more significant arboricultural impacts within the woodland owned by the National Grid to the south of the Drakelow substation. These impacts could potentially amount to a 16m wide corridor of tree removal through W9, the loss of 5 or 6 trees with bat roost potential and the loss of T168, and T169.

10.3. The proposed layout respects RPAs and the retained trees and they can be adequately protected during the construction process in order to sustain their health and longevity. However, it will still be necessary to implement the works in an appropriate manner in order to prevent unacceptable damage to retained trees.

10.4. Installation of the cable connection between the Proposed Development and the point of connection to the grid (Drakelow substation) will be carried out as set out in this report and follow the relevant NJUG guidance.

10.5. An Arboricultural Method Statement, finalised Tree Retention/Removal Plan and Tree Protection Plan will need to be produced in order to set out the final approach for the open trench installation of the underground cable and also for the widening and re-surfacing of the existing access and installation of a cellular confinement system in the vicinity of T1,T2, G1. Once the scheme has been approved, this detail could be agreed and submitted at a later stage as part of DCO requirements.

10.6. All identified ancient trees, veteran trees and areas of ASNW can be retained and safeguarded throughout the construction process so that no loss or deterioration in these irreplaceable habits will occur. As such the Proposed Development is compliant with paragraph 186(c) of the NPPF.

10.7. On the basis that the construction process is carried out appropriately, the Proposed Development can be implemented without significant impact on the identified arboricultural resource. In conclusion, the proposals are acceptable from an arboricultural perspective, subject to the implementation of the advice and recommendations set out in this report.

Richard Hyett

MSc, BSc (Hons), MICFor, MArborA / Chartered Arboriculturist

423250 423500 423750 424000 424250

319900 319650 319400 319150

T168 -C2
G62 -C2
T169 -B1
G63 -C2
T167 -C2
W10 -B1
G62 -C2
W9 -B2
G64 -B2
W8 -A2
T17 -B1
T18 -B1
T16 -C3
T15 -U
T14 -C3
H1 -C2
T5 -B2
T4 -A2
T1 -B1
T2 -A2
T3 -A2
G1 -A2
G2 -A2
G3 -A2
G4 -A3
T6 -B1
T7 -B1
T11 -B1
T12 -C1
T10 -B2
T8 -C1
T9 -B1
T30 -B1
G10 -A2
G11 -B2
T29 -B2
T28 -B2
T25 -A2
T24 -C1
T27 -A2
T26 -A2
G9 -B2
T23 -C2
T21 -B2
T22 -C3
T20 -B2
T13 -B1
G8 -B2
G6 -B2
G7 -B2
G5 -B2
T19 -C3
W1 -A2
G34 -B2

319700

KEY

- Category A Tree - High quality (Retention highly desirable)
- Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
- Category B Tree - Moderate quality (Retention desirable)
- Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
- Category C Tree - Low quality (May be retained but should not constrain development)
- Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)
- Category U Tree - Very low quality (Mostly unsuitable for retention)
- Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)
- Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability
- Shrub mass/offsite tree/out of scope (OOS)
- * Tree/Group/Hedgerow not on topographical survey. Location given is an estimate
- Tree / Hedgerow / Group to be removed

Ancient Tree / Woodland or Veteran Trees

- Ancient tree/woodland or Veteran tree: Important trees that require special consideration
- Ancient tree/woodland or Veteran tree buffer: As per published standing advice from Natural England and the Forestry Commission

Statutory Protection

- Tree Preservation Order (TPO): Trees under statutory protection. No tree works to be undertaken without specific consent or by relevant exception
- *The site may be within a designated Conservation Area which restricts tree works. Please see attached advice and guidance.*
- Cable Route

INDEX MAP

Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

GRID NORTH

0 30 60 120 Meters

PROJECT TITLE

Oaklands Solar Farm (4844)

DRAWING TITLE

Tree Survey Plan

SCALE				DRAWING NUMBER	
Scale: 1:1,750 @ A1					**BHA_4844_02**
DRAWN BY	APPROVED BY	REVISION	SHEET	DATE	
TB	**IH**	**A**	**1 of 8**	**02/02/2024**	

COORDINATE SYSTEM / DATUM: **British National Grid / Newlyn Datum (AOD)**

CLIENT: **Baywa**

CREDITS

Barton Hyett Associates
Arboricultural Consultants

Tel: 01386 576161
Address: Office 5E, Deer Park Business Centre,
Eckington, Pershore, Worcestershire, WR10 3DN

KEY

- Category A Tree - High quality (Retention highly desirable)
- Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
- Category B Tree - Moderate quality (Retention desirable)
- Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
- Category C Tree - Low quality (May be retained but should not constrain development)
- Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)
- Category U Tree - Very low quality (Mostly unsuitable for retention)
- Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)
- Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability
- Shrub mass/offsite tree/out of scope (OOS)
- Tree/Group/Hedgerow not on topographical survey. Location given is an estimate
- Tree / Hedgerow / Group to be removed

Ancient Tree / Woodland or Veteran Trees

- Ancient tree/woodland or Veteran tree: Important trees that require special consideration
- Ancient tree/woodland or Veteran tree buffer: As per published standing advice from Natural England and the Forestry Commission

Statutory Protection

Tree Preservation Order (TPO): Trees under statutory protection.
No tree works to be undertaken without specific consent or by relevant exception

The site may be within a designated Conservation Area which restricts tree works. Please see attached advice and guidance.

- Cable Route

INDEX MAP

Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

N
GRID NORTH

0 30 60 120 Meters

PROJECT TITLE

Oaklands Solar Farm (4844)

DRAWING TITLE

Tree Survey Plan

SCALE	DRAWING NUMBER
Scale: 1:1,750 @ A1	BHA_4844_02

DRAWN BY	APPROVED BY	REVISION	SHEET	DATE
TB	IH	A	2 of 8	02/02/2024

COORDINATE SYSTEM / DATUM: **British National Grid / Newlyn Datum (AOD)**

CLIENT: **Baywa**

Barton Hyett Associates
Arboricultural Consultants

Tel: 01386 576161
Address: Office 5E, Deer Park Business Centre,
Eckington, Pershore, Worcestershire, WR10 3DN

KEY

- Category A Tree - High quality (Retention highly desirable)
- Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
- Category B Tree - Moderate quality (Retention desirable)
- Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
- Category C Tree - Low quality (May be retained but should not constrain development)
- Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)
- Category U Tree - Very low quality (Mostly unsuitable for retention)
- Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)
- Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability
- Shrub mass/offsite tree/out of scope (OOS)
- * Tree/Group/Hedgerow not on topographical survey. Location given is an estimate
- Tree / Hedgerow / Group to be removed

Ancient Tree / Woodland or Veteran Trees

- Ancient tree/woodland or Veteran tree: Important trees that require special consideration
- Ancient tree/woodland or Veteran tree buffer: As per published standing advice from Natural England and the Forestry Commission

Statutory Protection

- Tree Preservation Order (TPO): Trees under statutory protection. No tree works to be undertaken without specific consent or by relevant exception

The site may be within a designated Conservation Area which restricts tree works. Please see attached advice and guidance.

- Cable Route

Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

N
GRID NORTH

0 30 60 120 Meters

PROJECT TITLE	Oaklands Solar Farm (4844)
DRAWING TITLE	**Tree Survey Plan**
SCALE	**Scale: 1:1,750 @ A1**
DRAWING NUMBER	**BHA_4844_02**
DRAWN BY	**TB**
APPROVED BY	**IH**
REVISION	**A**
SHEET	**3 of 8**
DATE	**02/02/2024**
COORDINATE SYSTEM / DATUM	**British National Grid / Newlyn Datum (AOD)**
CLIENT	**Baywa**

CREDITS

Barton Hyett Associates
Arboricultural Consultants

Tel: 01386 576161
Address: Office 5E, Deer Park Business Centre,
Eckington, Pershore, Worcestershire, WR10 3DN

KEY

Category A Tree - High quality
(Retention highly desirable)

Category A - Hedgerow, Group, Woodland - High quality
(Retention highly desirable)

Category B Tree - Moderate quality
(Retention desirable)

Category B - Hedgerow, Group, Woodland - Moderate quality
(Retention desirable)

Category C Tree - Low quality
(May be retained but should not constrain development)

Category C - Hedgerow, Group, Woodland - Low quality
(May be retained but should not constrain development)

Category U Tree - Very low quality
(Mostly unsuitable for retention)

Category U - Hedgerow, Group, Woodland - Very low quality
(Mostly unsuitable for retention)

Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability

Shrub mass/offsite tree/out of scope (OOS)

* Tree/Group/Hedgerow not on topographical survey. Location given is an estimate

Tree / Hedgerow / Group to be removed

Ancient Tree / Woodland or Veteran Trees

Ancient tree/woodland or Veteran tree: Important trees that require special consideration

Ancient tree/woodland or Veteran tree buffer: As per published standing advice from Natural England and the Forestry Commission

Statutory Protection

Tree Preservation Order (TPO): Trees under statutory protection.
No tree works to be undertaken without specific consent or by relevant exception

The site may be within a designated Conservation Area which restricts tree works. Please see attached advice and guidance.

Cable Route

INDEX MAP

Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

N
GRID NORTH

0 30 60 120 Meters

PROJECT TITLE

Oaklands Solar Farm (4844)

DRAWING TITLE

Tree Survey Plan

SCALE	DRAWING NUMBER
Scale: 1:1,750 @ A1	**BHA_4844_02**

DRAWN BY	APPROVED BY	REVISION	SHEET	DATE
TB	**IH**	**A**	**4 of 8**	**02/02/2024**

COORDINATE SYSTEM / DATUM
British National Grid / Newlyn Datum (AOD)

CLIENT
Baywa

CREDITS

Barton Hyett Associates
Arboricultural Consultants

Tel: 01386 576161
Address: Office 5E, Deer Park Business Centre,
Eckington, Pershore, Worcestershire, WR10 3DN

KEY

- Category A Tree - High quality (Retention highly desirable)
- Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
- Category B Tree - Moderate quality (Retention desirable)
- Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
- Category C Tree - Low quality (May be retained but should not constrain development)
- Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)
- Category U Tree - Very low quality (Mostly unsuitable for retention)
- Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)
- Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability
- Shrub mass/offsite tree/out of scope (OOS)
- Tree/Group/Hedgerow not on topographical survey. Location given is an estimate
- Tree / Hedgerow / Group to be removed

Ancient Tree / Woodland or Veteran Trees

- Ancient tree/woodland or Veteran tree: Important trees that require special consideration
- Ancient tree/woodland or Veteran tree buffer: As per published standing advice from Natural England and the Forestry Commission

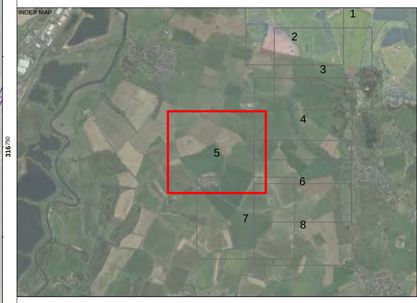
Statutory Protection

- Tree Preservation Order (TPO): Trees under statutory protection. No tree works to be undertaken without specific consent or by relevant exception

The site may be within a designated Conservation Area which restricts tree works. Please see attached advice and guidance.

- Cable Route

INDEX MAP



Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

N

GRID NORTH

0 30 60 120 Meters

PROJECT TITLE

Oaklands Solar Farm (4844)

DRAWING TITLE

Tree Survey Plan

SCALE				DRAWING NUMBER	
Scale: 1:1,750 @ A1				**BHA_4844_02**	
DRAWN BY	APPROVED BY	REVISION	SHEET	DATE	
TB	**IH**	**A**	**5 of 8**	**02/02/2024**	

COORDINATE SYSTEM / DATUM: **British National Grid / Newlyn Datum (AOD)**

CLIENT: **Baywa**

Barton Hyett Associates
Arboricultural Consultants

Tel: 01386 576161
Address: Office 5E, Deer Park Business Centre,
Eckington, Pershore, Worcestershire, WR10 3DN

KEY

- Category A Tree - High quality (Retention highly desirable)
- Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
- Category B Tree - Moderate quality (Retention desirable)
- Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
- Category C Tree - Low quality (May be retained but should not constrain development)
- Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)
- Category U Tree - Very low quality (Mostly unsuitable for retention)
- Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)
- Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability
- Shrub mass/offsite tree/out of scope (OOS)
- * Tree/Group/Hedgerow not on topographical survey. Location given is an estimate
- Tree / Hedgerow / Group to be removed

Ancient Tree / Woodland or Veteran Trees

- Ancient tree/woodland or Veteran tree: Important trees that require special consideration
- Ancient tree/woodland or Veteran tree buffer: As per published standing advice from Natural England and the Forestry Commission

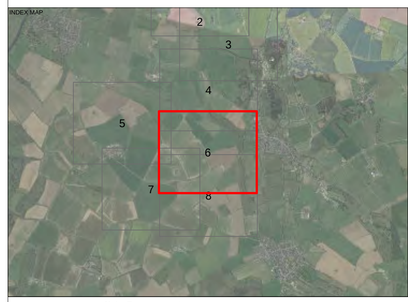
Statutory Protection

Tree Preservation Order (TPO): Trees under statutory protection.
No tree works to be undertaken without specific consent or by relevant exception

The site may be within a designated Conservation Area which restricts tree works. Please see attached advice and guidance.

- Cable Route

INDEX MAP



Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

N
GRID NORTH

0 30 60 120 Meters

PROJECT TITLE

Oaklands Solar Farm (4844)

DRAWING TITLE

Tree Survey Plan

SCALE	DRAWING NUMBER
Scale: 1:1,750 @ A1	BHA_4844_02

DRAWN BY	APPROVED BY	REVISION	SHEET	DATE
TB	IH	A	6 of 8	02/02/2024

COORDINATE SYSTEM / DATUM: **British National Grid / Newlyn Datum (AOD)**

CLIENT: **Baywa**

Barton Hyett Associates
Arboricultural Consultants

Tel: 01386 576161
Address: Office 5E, Deer Park Business Centre,
Eckington, Pershore, Worcestershire, WR10 3DN

KEY

- Category A Tree - High quality (Retention highly desirable)
- Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
- Category B Tree - Moderate quality (Retention desirable)
- Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
- Category C Tree - Low quality (May be retained but should not constrain development)
- Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)
- Category U Tree - Very low quality (Mostly unsuitable for retention)
- Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)
- Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability
- Shrub mass/offsite tree/out of scope (OOS)
- * Tree/Group/Hedgerow not on topographical survey. Location given is an estimate
- Tree / Hedgerow / Group to be removed

Ancient Tree / Woodland or Veteran Trees

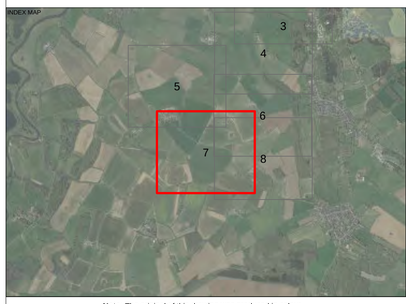
- Ancient tree/woodland or Veteran tree: Important trees that require special consideration
- Ancient tree/woodland or Veteran tree buffer: As per published standing advice from Natural England and the Forestry Commission

Statutory Protection

- Tree Preservation Order (TPO): Trees under statutory protection. No tree works to be undertaken without specific consent or by relevant exception

The site may be within a designated Conservation Area which restricts tree works. Please see attached advice and guidance.

- Cable Route



Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

N
GRID NORTH

0 30 60 120 Meters

PROJECT TITLE
Oaklands Solar Farm (4844)

DRAWING TITLE
Tree Survey Plan

SCALE	DRAWING NUMBER
Scale: 1:1,750 @ A1	BHA_4844_02

DRAWN BY	APPROVED BY	REVISION	SHEET	DATE
TD	IH	A	7 of 8	02/02/2024

COORDINATE SYSTEM / DATUM: **British National Grid / Newlyn Datum (AOD)**

CLIENT: **Baywa**

Barton Hyett Associates
Arboricultural Consultants

Tel: 01386 576161
Address: Office 5E, Deer Park Business Centre,
Eckington, Pershore, Worcestershire, WR10 3DN

KEY

- Category A Tree - High quality (Retention highly desirable)
- Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
- Category B Tree - Moderate quality (Retention desirable)
- Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
- Category C Tree - Low quality (May be retained but should not constrain development)
- Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)
- Category U Tree - Very low quality (Mostly unsuitable for retention)
- Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)
- Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability
- Shrub mass/offsite tree/out of scope (OOS)
- * Tree/Group/Hedgerow not on topographical survey. Location given is an estimate
- Tree / Hedgerow / Group to be removed

Ancient Tree / Woodland or Veteran Trees

- Ancient tree/woodland or Veteran tree: Important trees that require special consideration
- Ancient tree/woodland or Veteran tree buffer: As per published standing advice from Natural England and the Forestry Commission

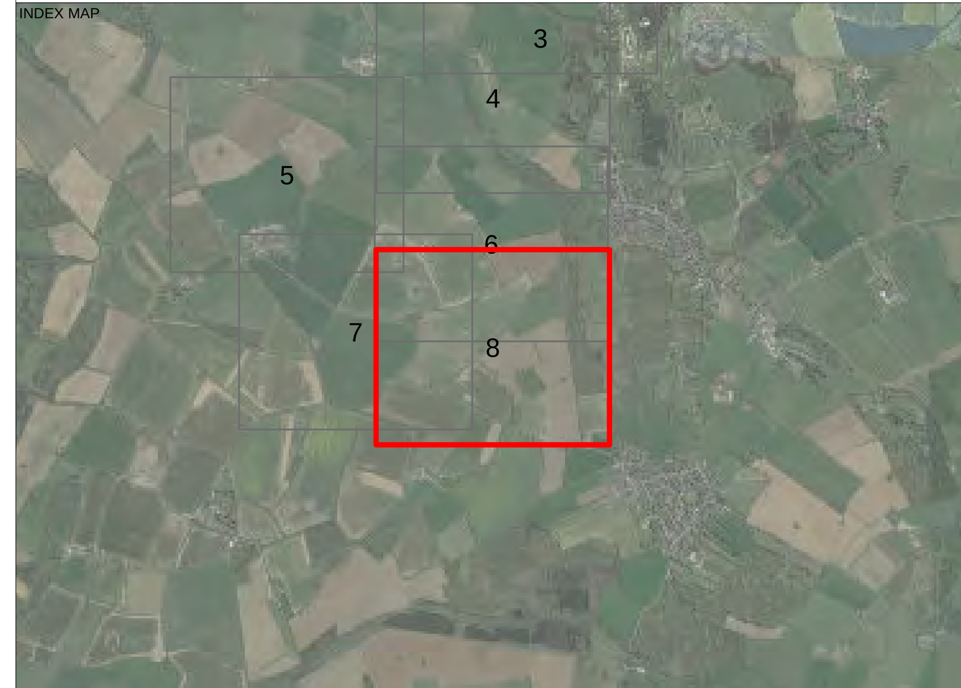
Statutory Protection

- Tree Preservation Order (TPO): Trees under statutory protection. No tree works to be undertaken without specific consent or by relevant exception

The site may be within a designated Conservation Area which restricts tree works. Please see attached advice and guidance.

- Cable Route

INDEX MAP



Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

N
GRID NORTH

0 30 60 120 Meters

PROJECT TITLE

Oaklands Solar Farm (4844)

DRAWING TITLE

Tree Survey Plan

SCALE				DRAWING NUMBER
Scale: 1:1,750 @ A1				**BHA_4844_02**
DRAWN BY **TB**	APPROVED BY **IH**	REVISION **A**	SHEET **8 of 8**	DATE **02/02/2024**

COORDINATE SYSTEM / DATUM **British National Grid / Newlyn Datum (AOD)**

CLIENT **Baywa**

CREDITS

Barton Hyett Associates
Arboricultural Consultants

Tel: 01386 576161
Address: Office 5E, Deer Park Business Centre,
Eckington, Pershore, Worcestershire, WR10 3DN

KEY

- Category A Tree - High quality (Retention highly desirable)
- Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
- Category B Tree - Moderate quality (Retention desirable)
- Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
- Category C Tree - Low quality (May be retained but should not constrain development)
- Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)
- Category U Tree - Very low quality (Mostly unsuitable for retention)
- Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)
- Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability
- Shrub mass/offsite tree/out of scope (OOS)
- Tree/Group/Hedgerow not on topographical survey. Location given is an estimate
- Tree / Hedgerow / Group to be removed

Ancient Tree / Woodland or Veteran Trees

- Ancient tree/woodland or Veteran tree: Important trees that require special consideration
- Ancient tree/woodland or Veteran tree buffer: As per published standing advice from Natural England and the Forestry Commission

Development / Design Guidance

- Recommended Development Area: Area considered appropriate for development in arboricultural terms having considered all arboricultural constraints
- Recommended buffer to development: Appropriate offset from development having considered all arboricultural constraints
- Photo images: Images of key arboricultural features at the site
- Target Note
- Cable Route
- Access Tracks approx 6m Wide
- Security Fence
- Hedgerow reduced to a height of 0.5m
- Trees with level of bat roost suitability – See ES Appendix 6.6 for further details

Target Notes

Label	Description
TN14(TRR)	Existing farm access track to be utilised
TN15(TRR)	Existing farm access to be utilised, any re-surfacing is to be laid on top of the existing sub-base
TN16(TRR)	Some minor pruning works (crown raising) may be necessary to provide the required site vehicle clearance
TN23(TRR)	Trenching for the cable to utilise existing gateway (gap in hedgerow)
TN24(TRR)	Trenching for the cable to be locally adjusted to avoid removal of tree stems over 150mm in diameter
TN25(TRR)	Removals illustrate worst case scenario within the corridor.
TN26(TRR)	Open trench cable installation to follow the route of the existing woodland track

Label	Description
TN27(TRR)	T167 to T168 may be able to be retained through local adjustment of the cable trench on-site
TN28(TRR)	Temporary widening of the track for truck access/turning will require temporary ground protection over a cellular confinement system to be utilised
TN29(TRR)	Some minor pruning works (crown raising) may be necessary to provide the required site vehicle clearance
TN30(TRR)	Existing farm access track to be utilised
TN35 (TRR)	Potential bat roost trees to be retained with the exception of one which is within the footprint of the temporary track (Adjacent roost)

INDEX MAP

Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

N

GRID NORTH

0 30 60 120 Meters

PROJECT TITLE

Oaklands Solar Farm (4844)

DRAWING TITLE

Tree Retention and Removal Plan

SCALE				DRAWING NUMBER	
Scale: 1:1,750 @ A1				BHA_4844_02	
DRAWN BY	APPROVED BY	REVISION	SHEET	DATE	
TB	IH	A	1 of 8	02/02/2024	

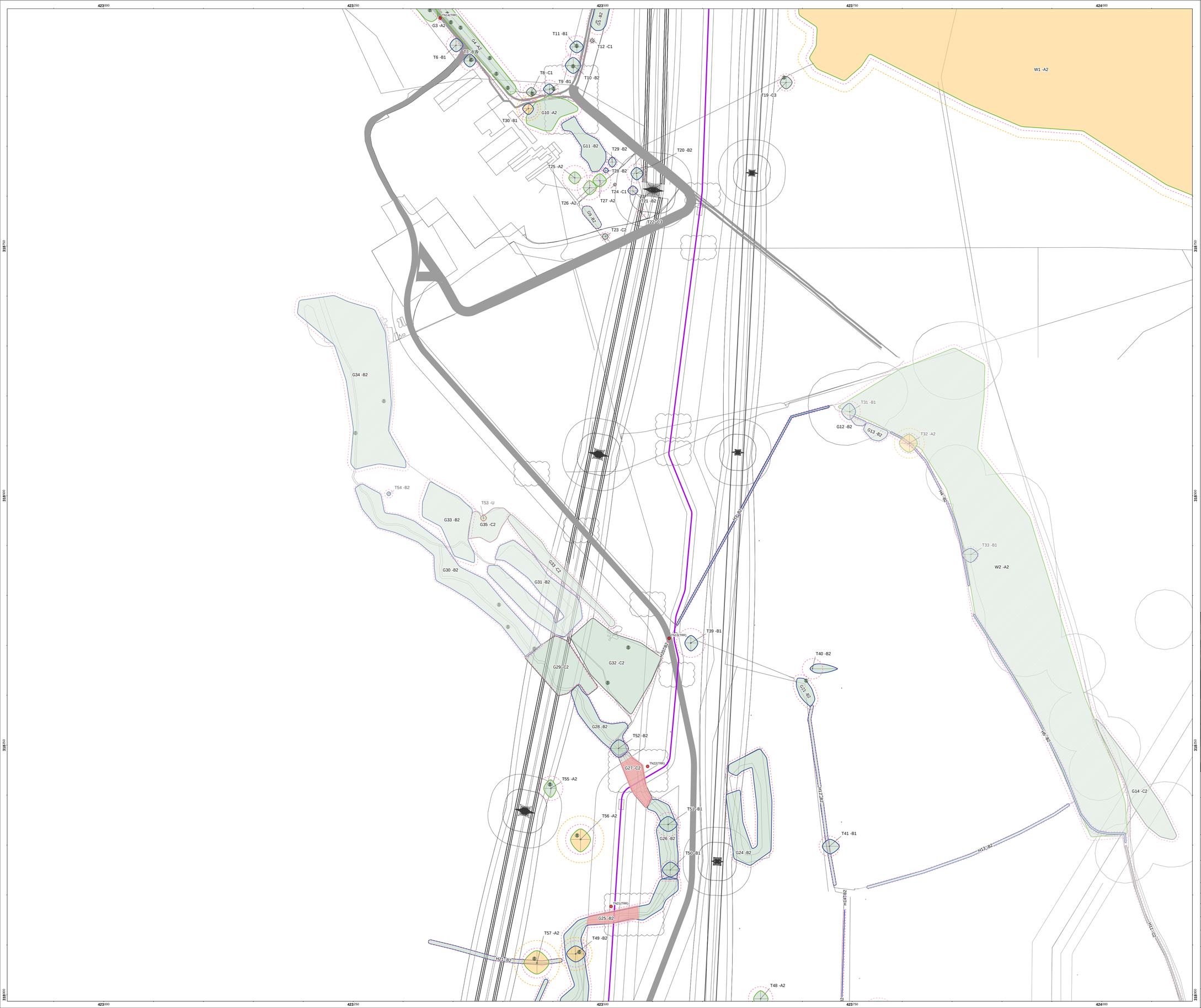
COORDINATE SYSTEM / DATUM: **British National Grid / Newlyn Datum (AOD)**

CLIENT: **Baywa**

CREDITS

Barton Hyett Associates
Arboricultural Consultants

Tel: 01386 576161
Address: Office 5E, Deer Park Business Centre, Eckington, Pershore, Worcestershire, WR10 3DN



KEY

- Category A Tree - High quality (Retention highly desirable)
- Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
- Category B Tree - Moderate quality (Retention desirable)
- Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
- Category C Tree - Low quality (May be retained but should not constrain development)
- Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)
- Category U Tree - Very low quality (Mostly unsuitable for retention)
- Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)
- Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability
- Shrub mass/offsite tree/out of scope (OOS)
- Tree/Group/Hedgerow not on topographical survey. Location given is an estimate
- Tree / Hedgerow / Group to be removed

Ancient Tree / Woodland or Veteran Trees

- Ancient tree/woodland or Veteran tree: Important trees that require special consideration
- Ancient tree/woodland or Veteran tree buffer: As per published standing advice from Natural England and the Forestry Commission

Development / Design Guidance

- Recommended Development Area: Area considered appropriate for development in arboricultural terms having considered all arboricultural constraints
- Recommended buffer to development: Appropriate offset from development having considered all arboricultural constraints
- Photo images: Images of key arboricultural features at the site

- Target Note
- Cable Route
- Access Tracks approx 6m Wide
- Security Fence
- Hedgerow reduced to a height of 0.5m
- Trees with level of bat roost suitability – See ES Appendix 6.6 for further details

Target Notes

Label	Description
TN13(TRR)	Existing gap in hedgerows to be utilised, some widening may be necessary
TN14(TRR)	Existing farm access track to be utilised
TN21(TRR)	a 5m section of G25 will require removal within the corridor
TN22(TRR)	5m section of G27 within the corridor will require removal

INDEX MAP

Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

N
GRID NORTH

0 30 60 120 Meters

PROJECT TITLE

Oaklands Solar Farm (4844)

DRAWING TITLE

Tree Retention and Removal Plan

SCALE			DRAWING NUMBER	
Scale: 1:1,750 @ A1			BHA_4844_02	
DRAWN BY	APPROVED BY	REVISION	SHEET	DATE
TB	IH	A	2 of 8	02/02/2024

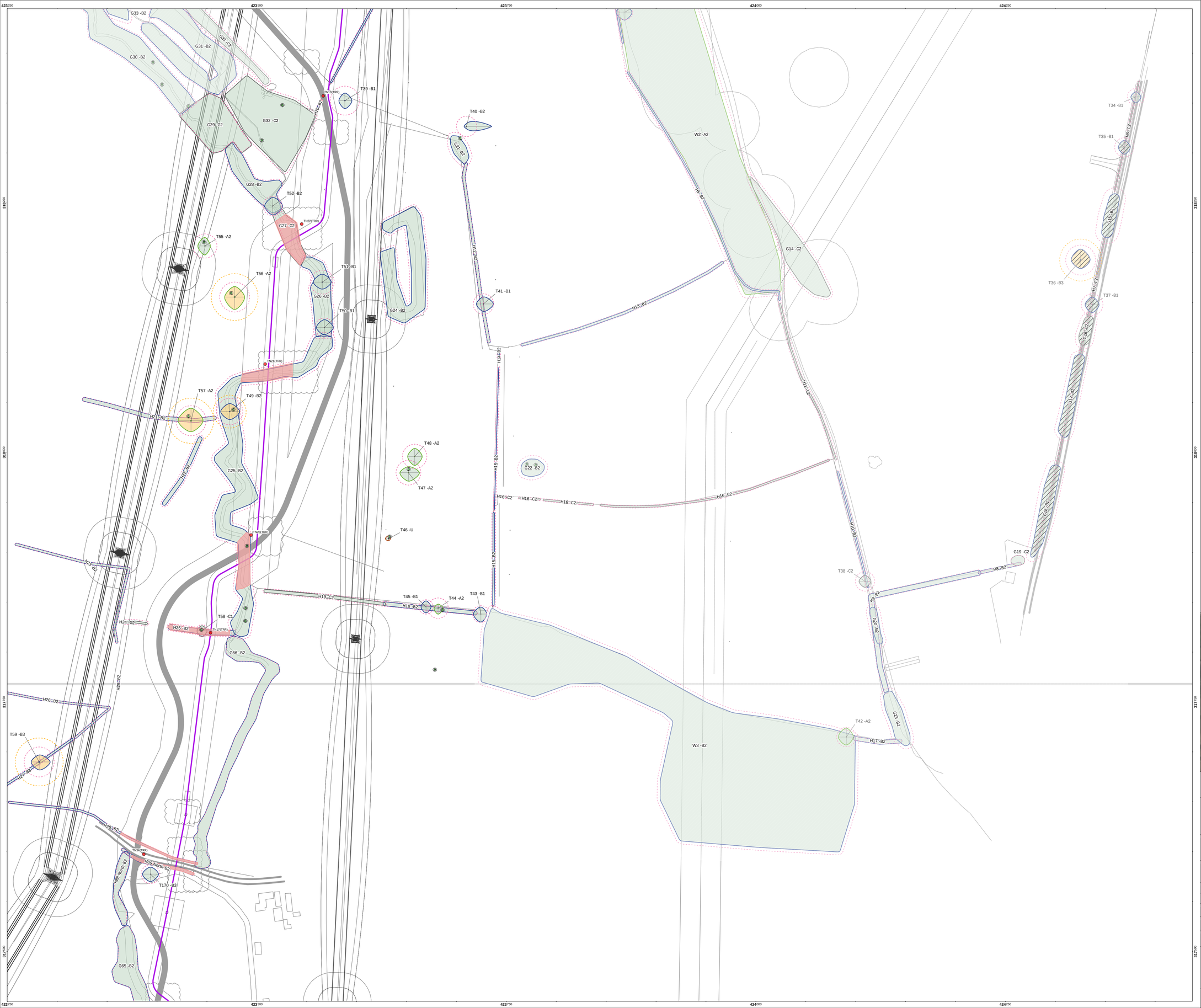
COORDINATE SYSTEM / DATUM: **British National Grid / Newlyn Datum (AOD)**

CLIENT: **Baywa**

CREDITS

Barton Hyett Associates
Arboricultural Consultants

Tel: 01386 576161
Address: Office 5E, Deer Park Business Centre,
Eckington, Pershore, Worcestershire, WR10 3DN



KEY

- Category A Tree - High quality (Retention highly desirable)
- Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
- Category B Tree - Moderate quality (Retention desirable)
- Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
- Category C Tree - Low quality (May be retained but should not constrain development)
- Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)
- Category U Tree - Very low quality (Mostly unsuitable for retention)
- Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)
- Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability
- Shrub mass/offsite tree/out of scope (OOS)
- Tree/Group/Hedgerow not on topographical survey. Location given is an estimate
- Tree / Hedgerow / Group to be removed

Ancient Tree / Woodland or Veteran Trees

- Ancient tree/woodland or Veteran tree: Important trees that require special consideration
- Ancient tree/woodland or Veteran tree buffer: As per published standing advice from Natural England and the Forestry Commission

Development / Design Guidance

- Recommended Development Area: Area considered appropriate for development in arboricultural terms having considered all arboricultural constraints
- Recommended buffer to development: Appropriate offset from development having considered all arboricultural constraints
- Photo images: Images of key arboricultural features at the site
- Target Note
- Cable Route
- Access Tracks approx 6m Wide
- Security Fence
- Hedgerow reduced to a height of 0.5m
- Trees with level of bat roost suitability – See ES Appendix 6.6 for further details

Target Notes

Label	Description
TN13(TRR)	Existing gap in hedgerows to be utilised, some widening may be necessary
TN17(TRR)	A 5m section of H25 will require removal within the corridor
TN20(TRR)	Potential bat roost tree to be retained
TN21(TRR)	a 5m section of G25 will require removal within the corridor
TN22(TRR)	5m section of G27 within the corridor will require removal
TN34(TRR)	5m sections of H89 North & H28 within the corridor will require removal for the temporary access track

Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

GRID NORTH

0 30 60 120 Meters

PROJECT TITLE

Oaklands Solar Farm (4844)

DRAWING TITLE

Tree Retention and Removal Plan

SCALE	DRAWING NUMBER
Scale: 1:1,750 @ A1	BHA_4844_02

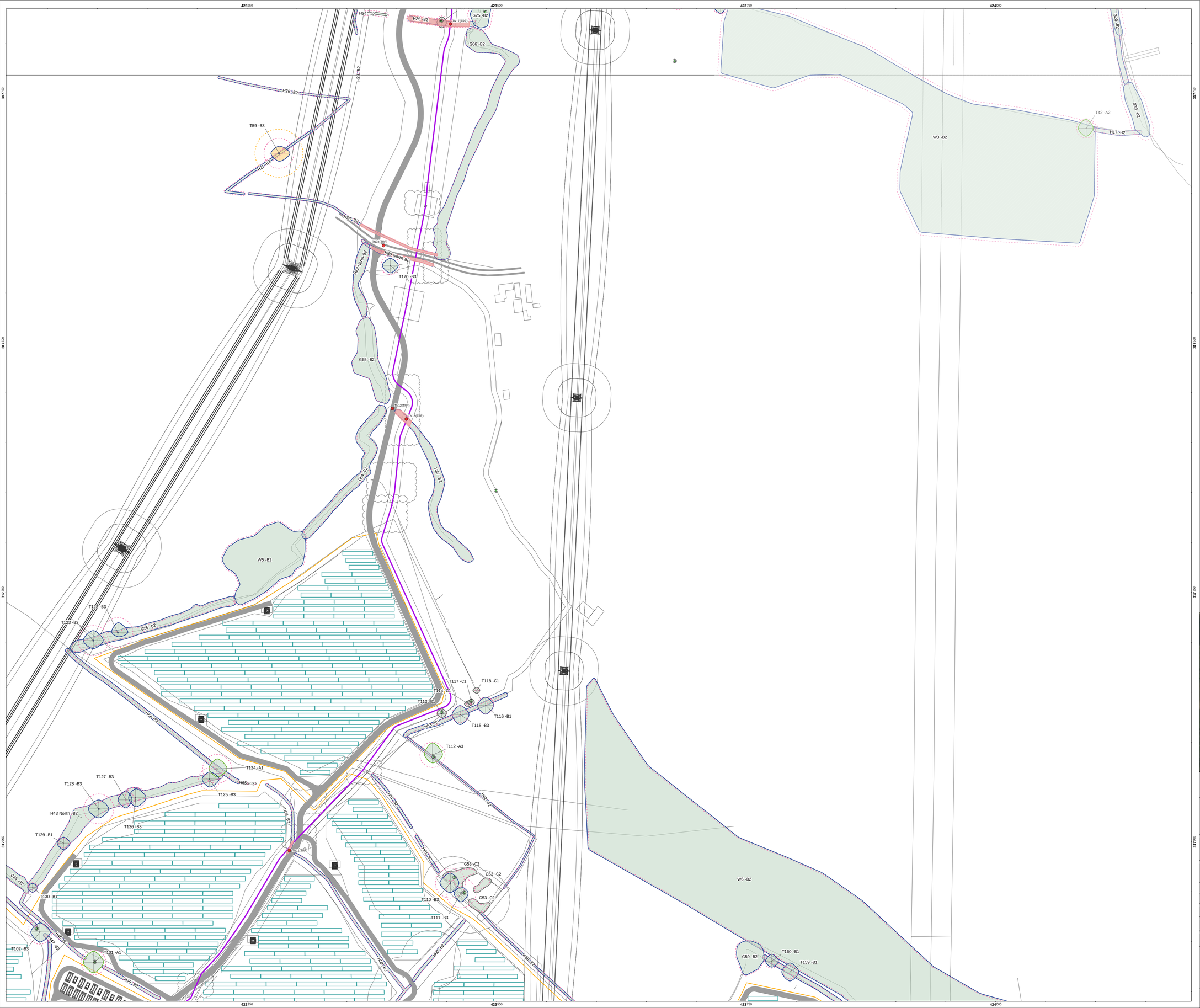
DRAWN BY	APPROVED BY	REVISION	SHEET	DATE
TB	IH	A	3 of 8	02/02/2024

COORDINATE SYSTEM / DATUM: **British National Grid / Newlyn Datum (AOD)**

CLIENT: **Baywa**

Barton Hyett Associates
Arboricultural Consultants

Tel: 01386 576161
Address: Office 5E, Deer Park Business Centre,
Eckington, Pershore, Worcestershire, WR10 3DN



KEY

- Category A Tree - High quality (Retention highly desirable)
- Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
- Category B Tree - Moderate quality (Retention desirable)
- Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
- Category C Tree - Low quality (May be retained but should not constrain development)
- Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)
- Category U Tree - Very low quality (Mostly unsuitable for retention)
- Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)
- Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability
- Shrub mass/offsite tree/out of scope (OOS)
- Tree/Group/Hedgerow not on topographical survey. Location given is an estimate
- Tree / Hedgerow / Group to be removed

Ancient Tree / Woodland or Veteran Trees

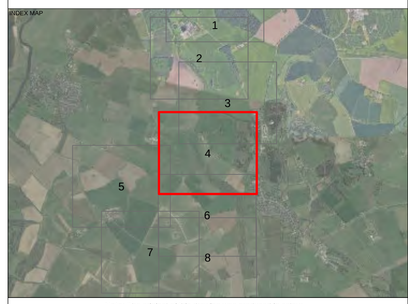
- Ancient tree/woodland or Veteran tree: Important trees that require special consideration
- Ancient tree/woodland or Veteran tree buffer: As per published standing advice from Natural England and the Forestry Commission

Development / Design Guidance

- Recommended Development Area: Area considered appropriate for development in arboricultural terms having considered all arboricultural constraints
- Recommended buffer to development: Appropriate offset from development having considered all arboricultural constraints
- Photo images: Images of key arboricultural features at the site
- Target Note
- Cable Route
- Access Tracks approx 6m Wide
- Security Fence
- Hedgerow reduced to a height of 0.5m
- Trees with level of bat roost suitability – See ES Appendix 6.6 for further details

Target Notes

Label	Description
TN31(TRR)	Approximately 10 linear meters of hedgerow removal may be necessary to widen the existing field access
TN12(TRR)	Existing gap between tree groups and hedgerow to be utilised for the track
TN17(TRR)	A 5m section of H25 will require removal within the corridor
TN18(TRR)	A 6m section of H67 will require removal within the corridor
TN34(TRR)	5m sections of H69 North & H28 within the corridor will require removal for the temporary access track



Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

GRID NORTH

0 30 60 120 Meters

PROJECT TITLE

Oaklands Solar Farm (4844)

DRAWING TITLE

Tree Retention and Removal Plan

SCALE	DRAWING NUMBER
Scale: 1:1,750 @ A1	BHA_4844_02

DRAWN BY	APPROVED BY	REVISION	SHEET	DATE
TB	IH	A	4 of 8	02/02/2024

COORDINATE SYSTEM / DATUM: **British National Grid / Newlyn Datum (AOD)**

CLIENT: **Baywa**

CREDITS

Barton Hyett Associates
Arboricultural Consultants

Tel: 01386 576161
Address: Office 5E, Deer Park Business Centre, Eckington, Pershore, Worcestershire, WR10 3DN

KEY

- Category A Tree - High quality (Retention highly desirable)
- Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
- Category B Tree - Moderate quality (Retention desirable)
- Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
- Category C Tree - Low quality (May be retained but should not constrain development)
- Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)
- Category U Tree - Very low quality (Mostly unsuitable for retention)
- Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)
- Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability
- Shrub mass/offsite tree/out of scope (OOS)
- Tree/Group/Hedgerow not on topographical survey. Location given is an estimate
- Tree / Hedgerow / Group to be removed

Ancient Tree / Woodland or Veteran Trees

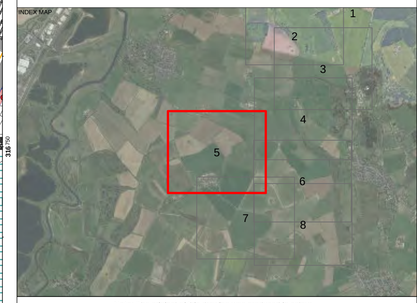
- Ancient tree/woodland or Veteran tree: Important trees that require special consideration
- Ancient tree/woodland or Veteran tree buffer: As per published standing advice from Natural England and the Forestry Commission

Development / Design Guidance

- Recommended Development Area: Area considered appropriate for development in arboricultural terms having considered all arboricultural constraints
- Recommended buffer to development: Appropriate offset from development having considered all arboricultural constraints
- Photo images: Images of key arboricultural features at the site
- Target Note
- Cable Route
- Access Tracks approx 6m Wide
- Security Fence
- Hedgerow reduced to a height of 0.5m
- Trees with level of bat roost suitability – See ES Appendix 6.6 for further details

Target Notes

Label	Description
TN19(TRR)	A 5m section of H45 will require removal



Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

N
GRID NORTH

0 30 60 120 Meters

PROJECT TITLE
Oaklands Solar Farm (4844)

DRAWING TITLE
Tree Retention and Removal Plan

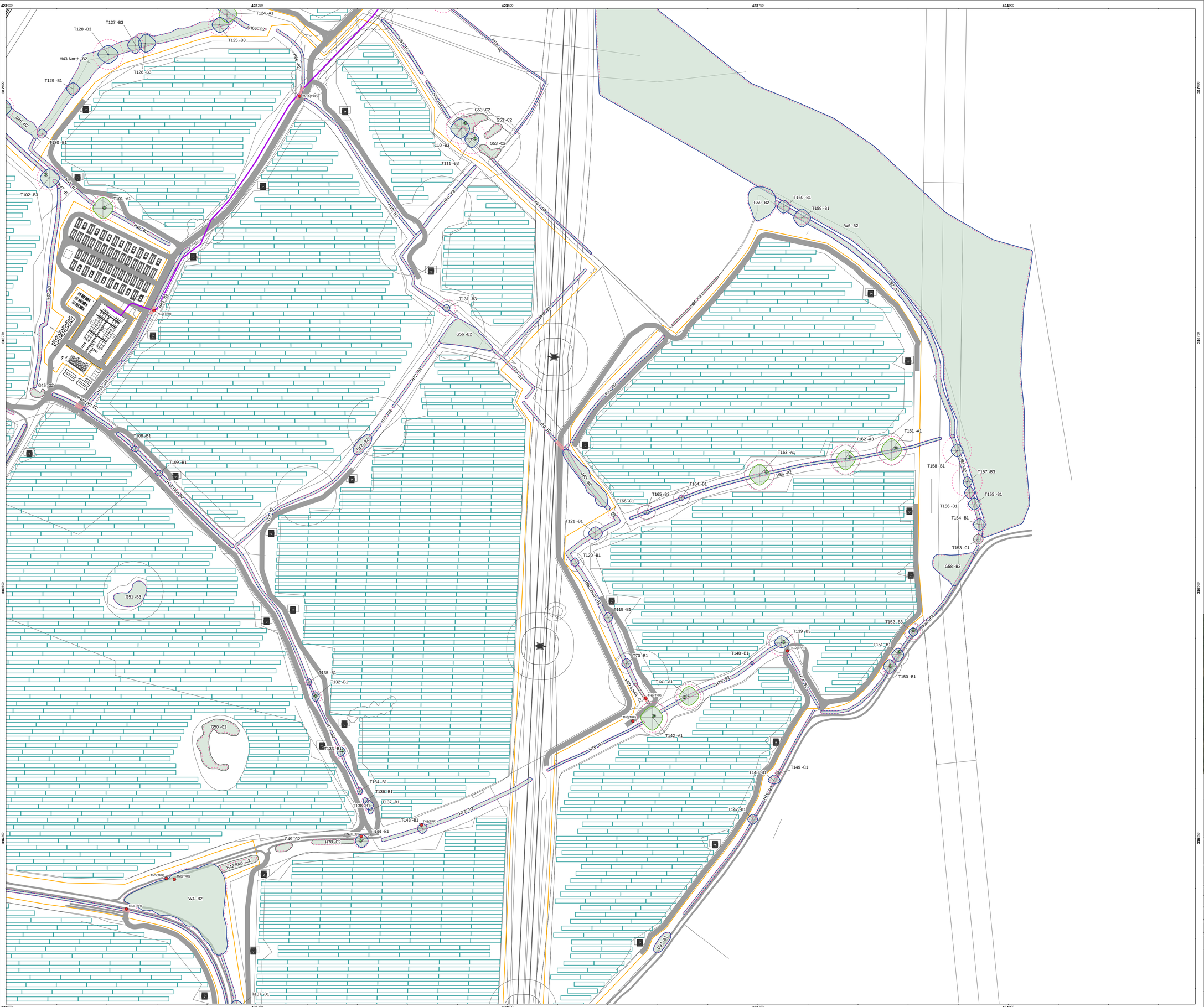
SCALE	DRAWING NUMBER
Scale: 1:1,750 @ A1	BHA_4844_02

DRAWN BY	APPROVED BY	REVISION	SHEET	DATE
TB	IH	A	5 of 8	02/02/2024

COORDINATE SYSTEM / DATUM: British National Grid / Newlyn Datum (AOD)

CLIENT: Baywa

Barton Hyett Associates
Arboricultural Consultants
Tel: 01386 576161
Address: Office 5E, Deer Park Business Centre,
Eckington, Pershore, Worcestershire, WR10 3DN



KEY

	Category A Tree - High quality (Retention highly desirable)
	Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
	Category B Tree - Moderate quality (Retention desirable)
	Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
	Category C Tree - Low quality (May be retained but should not constrain development)
	Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)
	Category U Tree - Very low quality (Mostly unsuitable for retention)
	Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)
◌	Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability
⬭	Shrub mass/offsite tree/out of scope (OOS)
*	Tree/Group/Hedgerow not on topographical survey. Location given is an estimate
	Tree / Hedgerow / Group to be removed

Ancient Tree / Woodland or Veteran Trees

	Ancient tree/woodland or Veteran tree: Important trees that require special consideration
◌	Ancient tree/woodland or Veteran tree buffer: As per published standing advice from Natural England and the Forestry Commission

Development / Design Guidance

Recommended Development Area: Area considered appropriate for development in arboricultural terms having considered all arboricultural constraints

Recommended buffer to development: Appropriate offset from development having considered all arboricultural constraints

Photo images: Images of key arboricultural features at the site

●	Target Note
—	Cable Route
▬	Access Tracks approx 6m Wide
—	Security Fence
🟨	Hedgerow reduced to a height of 0.5m
	Trees with level of bat roost suitability – See ES Appendix 6.6 for further details

Target Notes

Label	Description
TN3(TRR)	Existing gap in hedgerow to be utilised with some widening being required
TN5(TRR)	Existing hard surfaced farm track to be utilised
TN6(TRR)	Ditch accross the northern edge of the woodland separates the woodland from the site
TN6(TRR)	Operation and maintenance track to avoid the RPA of T142. To be locally adjusted at the time of setting out
TN7(TRR)	Improvement of the existing farm track to utilise a 'no dig' method for construction through the RPA
TN8(TRR)	Improvement of the existing farm track to utilise a 'no dig' method for construction through the RPA
TN9(TRR)	3.5m Removal required to acomadate a minor track re-alignment
TN10(TRR)	Track to be of 'no dig' construction through the RPA of T139
TN11(TRR)	Approximately 10 linear meters of hedgerow removal may be necessary to widen the existing field access
TN19(TRR)	A 5m section of H45 will require removal

INDEX MAP

Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

PROJECT TITLE

Oaklands Solar Farm (4844)

DRAWING TITLE

Tree Retention and Removal Plan

SCALE	**Scale: 1:1,750 @ A1**			DRAWING NUMBER	**BHA_4844_02**
DRAWN BY **TB**	APPROVED BY **IH**	REVISION **A**	SHEET **6 of 8**	DATE **02/02/2024**	

COORDINATE SYSTEM / DATUM

British National Grid / Newlyn Datum (AOD)

CLIENT

Baywa

CREDITS
Crown copyright. All rights reserved.
2023 Emapsite Licence number 0100061264.
Ordnance Survey Copyright Licence number 100054267.

Barton Hyett Associates
Arboricultural Consultants
Tel: 01386 576161
Address: Office 5E, Deer Park Business Centre,
Eckington, Pershore, Worcestershire, WR10 3DN

KEY

Category A Tree - High quality (Retention highly desirable)

Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)

Category B Tree - Moderate quality (Retention desirable)

Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)

Category C Tree - Low quality (May be retained but should not constrain development)

Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)

Category U Tree - Very low quality (Mostly unsuitable for retention)

Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)

Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability

Shrub mass/offsite tree/out of scope (OOS)

* Tree/Group/Hedgerow not on topographical survey. Location given is an estimate

Tree / Hedgerow / Group to be removed

Ancient Tree / Woodland or Veteran Trees

Ancient tree/woodland or Veteran tree: Important trees that require special consideration

Ancient tree/woodland or Veteran tree buffer: As per published standing advice from Natural England and the Forestry Commission

Development / Design Guidance

Recommended Development Area: Area considered appropriate for development in arboricultural terms having considered all arboricultural constraints

Recommended buffer to development: Appropriate offset from development having considered all arboricultural constraints

Photo images: Images of key arboricultural features at the site

Target Note

Cable Route

Access Tracks approx 6m Wide

Security Fence

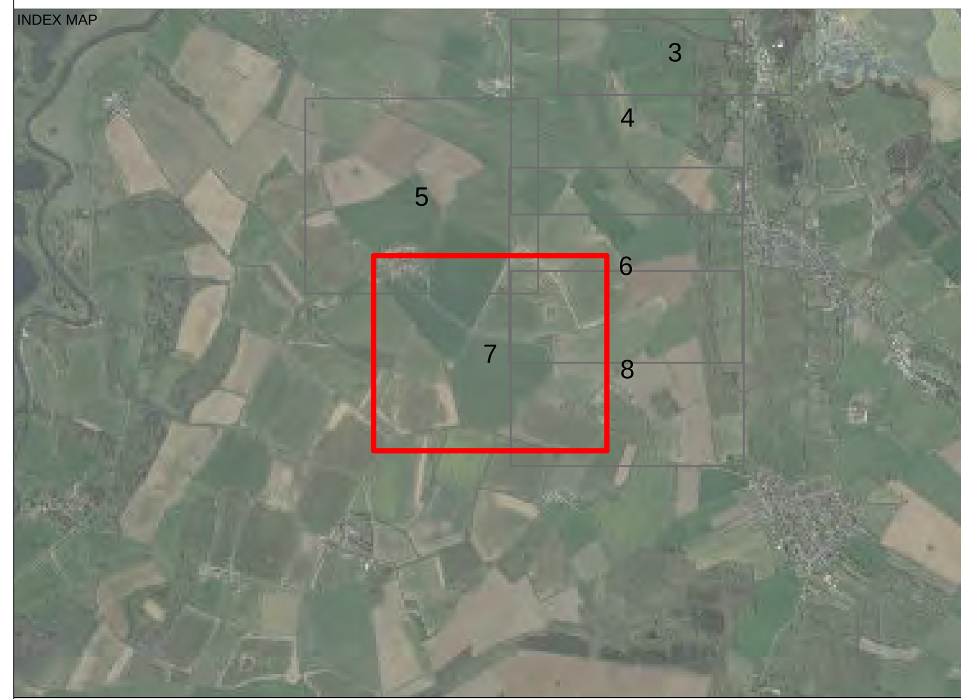
Hedgerow reduced to a height of 0.5m

Trees with level of bat roost suitability – See ES Appendix 6.6 for further details

Target Notes

Label	Description
TN1(TRR)	Existing tarmacadam track to be utilised
TN2(TRR)	Existing tarmacadam field access to be utilised
TN3(TRR)	Existing gap in hedgerow to be utilised with some widening being required
TN4(TRR)	Existing gap in hedgerow to be utilised with some widening being required
TN5(TRR)	Existing hard surfaced farm track to be utilised
TN6(TRR)	Ditch accross the northern edge of the woodland separates the woodland from the site
TN7(TRR)	Improvement of the existing farm track to utilise a 'no dig' method for construction through the RPA
TN8(TRR)	Improvement of the existing farm track to utilise a 'no dig' method for construction through the RPA
TN31(TRR)	Section of H50 requires removal for the required visplay
TN33(TRR)	Section of H41 requires removal for the required visplay

INDEX MAP



Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

N GRID NORTH

0 30 60 120 Meters

PROJECT TITLE

Oaklands Solar Farm (4844)

DRAWING TITLE

Tree Retention and Removal Plan

SCALE	DRAWING NUMBER
Scale: 1:1,750 @ A1	**BHA_4844_02**

DRAWN BY	APPROVED BY	REVISION	SHEET	DATE
TB	**IH**	**A**	**7 of 8**	**02/02/2024**

COORDINATE SYSTEM / DATUM

British National Grid / Newlyn Datum (AOD)

CLIENT

Baywa

CREDITS

Barton Hyett Associates
Arboricultural Consultants

Tel: 01386 576161
Address: Office 5E, Deer Park Business Centre, Eckington, Pershore, Worcestershire, WR10 3DN

KEY

- Category A Tree - High quality (Retention highly desirable)
- Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
- Category B Tree - Moderate quality (Retention desirable)
- Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
- Category C Tree - Low quality (May be retained but should not constrain development)
- Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)
- Category U Tree - Very low quality (Mostly unsuitable for retention)
- Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)
- Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability
- Shrub mass/offsite tree/out of scope (OOS)
- Tree/Group/Hedgerow not on topographical survey. Location given is an estimate
- Tree / Hedgerow / Group to be removed

Ancient Tree / Woodland or Veteran Trees

- Ancient tree/woodland or Veteran tree: Important trees that require special consideration
- Ancient tree/woodland or Veteran tree buffer: As per published standing advice from Natural England and the Forestry Commission

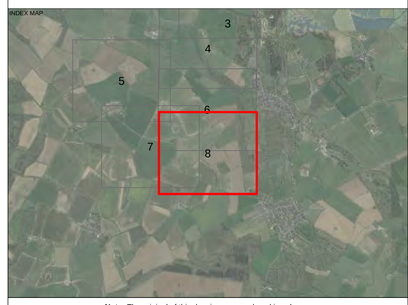
Development / Design Guidance

- Recommended Development Area: Area considered appropriate for development in arboricultural terms having considered all arboricultural constraints
- Recommended buffer to development: Appropriate offset from development having considered all arboricultural constraints
- Photo images: Images of key arboricultural features at the site
- Target Note
- Cable Route
- Access Tracks approx 6m Wide
- Security Fence
- Hedgerow reduced to a height of 0.5m
- Trees with level of bat roost suitability – See ES Appendix 6.6 for further details

Target Notes

Label	Description
TN3(TRR)	Existing gap in hedgerow to be utilised with some widening being required
TN4(TRR)	Existing gap in hedgerow to be utilised with some widening being required
TN5(TRR)	Existing hard surfaced farm track to be utilised
TN6(TRR)	Ditch accross the northern edge of the woodland separates the woodland from the site
TN7(TRR)	Operation and maintenance track to avoid the RPA of T142. To be locally adjusted at the time of setting out
TN8(TRR)	Improvement of the existing farm track to utilise a 'no dig' method for construction through the RPA
TN9(TRR)	Improvement of the existing farm track to utilise a 'no dig' method for construction through the RPA
TN9(TRR)	3.5m Removal required to accomadate a minor track re-alignment
TN10(TRR)	Track to be of 'no dig' construction through the RPA of T139

INDEX MAP



Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

N
GRID NORTH

0 30 60 120 Meters

PROJECT TITLE

Oaklands Solar Farm (4844)

DRAWING TITLE

Tree Retention and Removal Plan

SCALE	DRAWING NUMBER
Scale: 1:1,750 @ A1	BHA_4844_02

DRAWN BY	APPROVED BY	REVISION	SHEET	DATE
TD	IH	A	8 of 8	02/02/2024

COORDINATE SYSTEM / DATUM: **British National Grid / Newlyn Datum (AOD)**

CLIENT: **Baywa**

Barton Hyett Associates
Arboricultural Consultants

Tel: 01386 576161
Address: Office 5E, Deer Park Business Centre,
Eckington, Pershore, Worcestershire, WR10 3DN

KEY

Category A Tree - High quality
(Retention highly desirable)

Category A - Hedgerow, Group, Woodland - High quality
(Retention highly desirable)

Category B Tree - Moderate quality
(Retention desirable)

Category B - Hedgerow, Group, Woodland - Moderate quality
(Retention desirable)

Category C Tree - Low quality
(May be retained but should not constrain development)

Category C - Hedgerow, Group, Woodland - Low quality
(May be retained but should not constrain development)

Category U Tree - Very low quality
(Mostly unsuitable for retention)

Category U - Hedgerow, Group, Woodland - Very low quality
(Mostly unsuitable for retention)

Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability

Shrub mass/offsite tree/out of scope (OOS)

* Tree/Group/Hedgerow not on topographical survey. Location given is an estimate

Tree / Hedgerow / Group to be removed

Ancient Tree / Woodland or Veteran Trees

Ancient tree/woodland or Veteran tree: Important trees that require special consideration

Ancient tree/woodland or Veteran tree buffer: As per published standing advice from Natural England and the Forestry Commission

Development / Design Guidance

Recommended Development Area: Area considered appropriate for development in arboricultural terms having considered all arboricultural constraints

Recommended buffer to development: Appropriate offset from development having considered all arboricultural constraints

Photo images: Images of key arboricultural features at the site

Target Note

Cable Route

Access Tracks approx 6m Wide

Security Fence

Hedgerow reduced to a height of 0.5m

Trees with level of bat roost suitability – See ES Appendix 6.6 for further details

Target Notes

INDEX MAP

Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

N
GRID NORTH

0 30 60 120 Meters

PROJECT TITLE

Oaklands Solar Farm (4844)

DRAWING TITLE

Tree Retention and Removal Plan

SCALE				DRAWING NUMBER
Scale: 1:1,750 @ A1				BHA_4844_02
DRAWN BY	APPROVED BY	REVISION	SHEET	DATE
TB	IH	A	1 of 8	02/02/2024

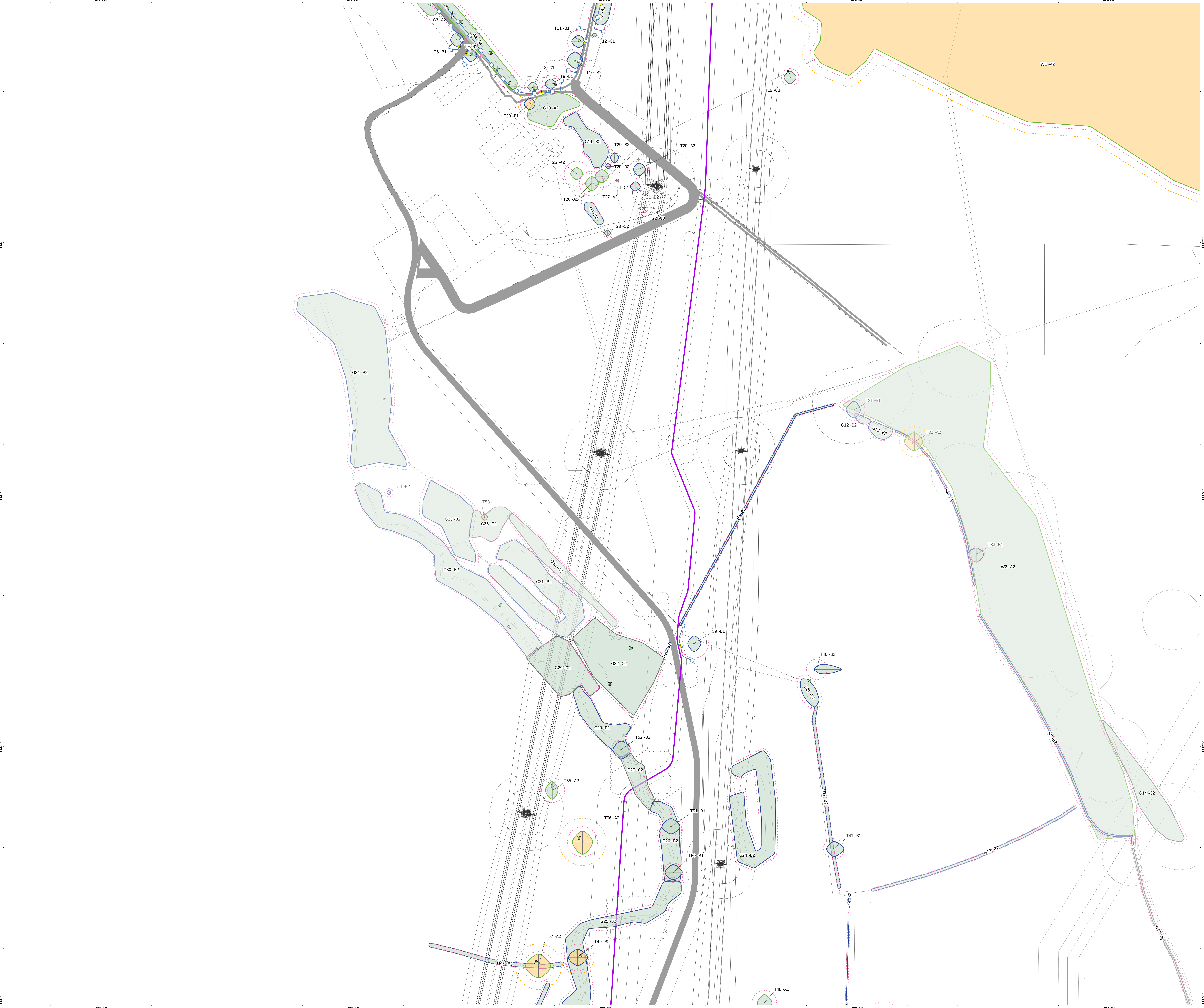
COORDINATE SYSTEM / DATUM
British National Grid / Newlyn Datum (AOD)

CLIENT
Baywa

CREDITS

Barton Hyett Associates
Arboricultural Consultants

Tel: 01386 576161
Address: Office 5E, Deer Park Business Centre,
Eckington, Pershore, Worcestershire, WR10 3DN



KEY

- Category A Tree - High quality (Retention highly desirable)
- Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
- Category B Tree - Moderate quality (Retention desirable)
- Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
- Category C Tree - Low quality (May be retained but should not constrain development)
- Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)
- Category U Tree - Very low quality (Mostly unsuitable for retention)
- Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)
- Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability
- Shrub mass/offsite tree/out of scope (OOS)
- * Tree/Group/Hedgerow not on topographical survey. Location given is an estimate
- Tree / Hedgerow / Group to be removed

Ancient Tree / Woodland or Veteran Trees

- Ancient tree/woodland or Veteran tree: Important trees that require special consideration
- Ancient tree/woodland or Veteran tree buffer: As per published standing advice from Natural England and the Forestry Commission

Development / Design Guidance

- Recommended Development Area: Area considered appropriate for development in arboricultural terms having considered all arboricultural constraints
- Recommended buffer to development: Appropriate offset from development having considered all arboricultural constraints
- Photo images: Images of key arboricultural features at the site
- Target Note
- Cable Route
- Access Tracks approx 6m Wide
- Security Fence
- Hedgerow reduced to a height of 0.5m
- Trees with level of bat roost suitability – See ES Appendix 6.6 for further details

Target Notes

INDEX MAP

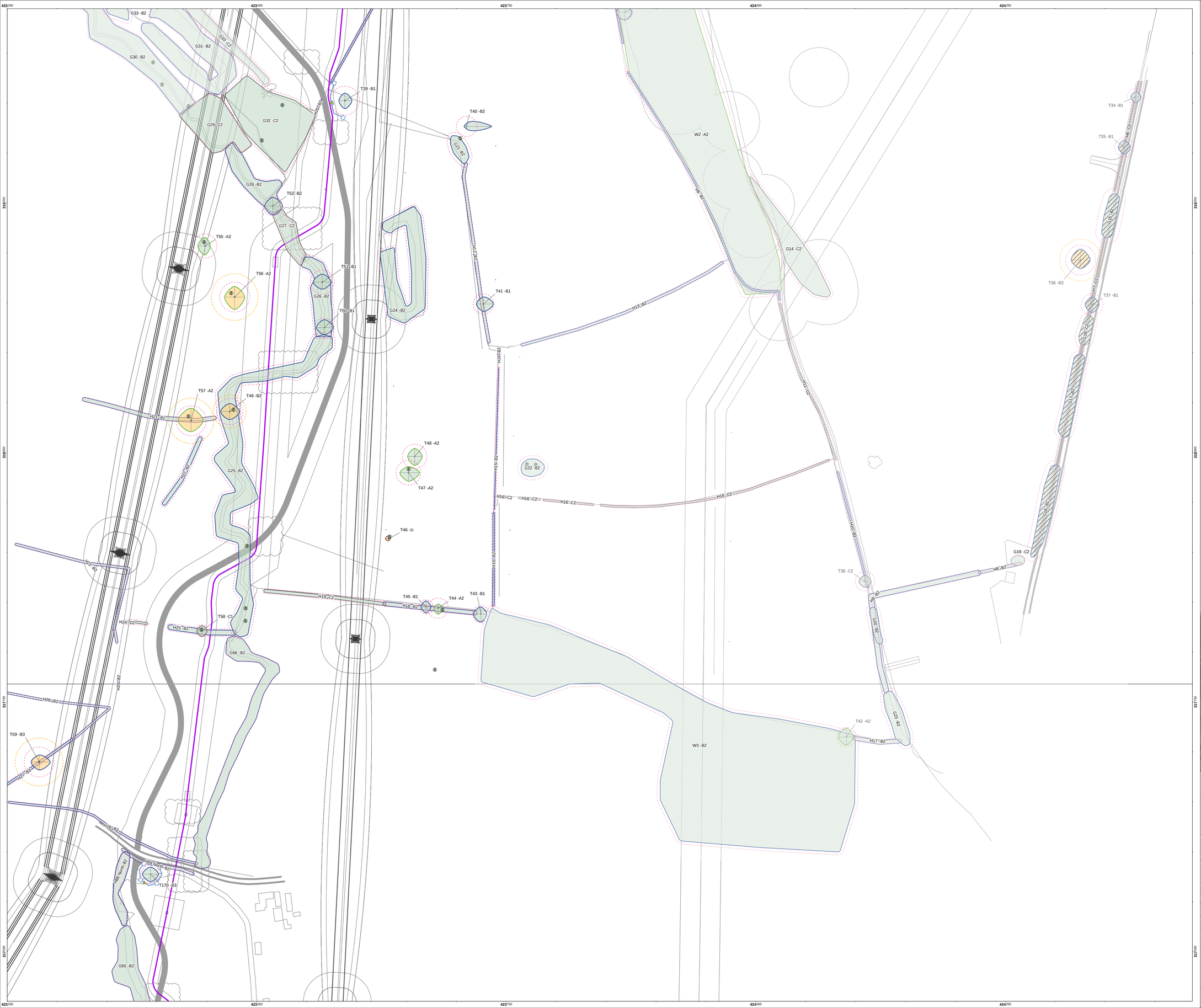
Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

N
GRID NORTH

0 30 60 120 Meters

PROJECT TITLE	Oaklands Solar Farm (4844)
DRAWING TITLE	Tree Retention and Removal Plan
SCALE	Scale: 1:1,750 @ A1
DRAWING NUMBER	BHA_4844_02
DRAWN BY	TB
APPROVED BY	IH
REVISION	A
SHEET	2 of 8
DATE	02/02/2024
COORDINATE SYSTEM / DATUM	British National Grid / Newlyn Datum (AOD)
CLIENT	Baywa
CREDITS	

Barton Hyett Associates
Arboricultural Consultants
Tel: 01386 576161
Address: Office 5E, Deer Park Business Centre, Eckington, Pershore, Worcestershire, WR10 3DN



KEY

- Category A Tree - High quality (Retention highly desirable)
- Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
- Category B Tree - Moderate quality (Retention desirable)
- Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
- Category C Tree - Low quality (May be retained but should not constrain development)
- Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)
- Category U Tree - Very low quality (Mostly unsuitable for retention)
- Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)
- Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability
- Shrub mass/offsite tree/out of scope (OOS)
- Tree/Group/Hedgerow not on topographical survey. Location given is an estimate
- Tree / Hedgerow / Group to be removed

Ancient Tree / Woodland or Veteran Trees

- Ancient tree/woodland or Veteran tree: Important trees that require special consideration
- Ancient tree/woodland or Veteran tree buffer: As per published standing advice from Natural England and the Forestry Commission

Development / Design Guidance

- Recommended Development Area: Area considered appropriate for development in arboricultural terms having considered all arboricultural constraints
- Recommended buffer to development: Appropriate offset from development having considered all arboricultural constraints
- Photo images: Images of key arboricultural features at the site
- Target Note
- Cable Route
- Access Tracks approx 6m Wide
- Security Fence
- Hedgerow reduced to a height of 0.5m
- Trees with level of bat roost suitability – See ES Appendix 6.6 for further details

Target Notes

INDEX MAP

Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

N
GRID NORTH

0 30 60 120 Meters

PROJECT TITLE

Oaklands Solar Farm (4844)

DRAWING TITLE

Tree Retention and Removal Plan

SCALE	DRAWING NUMBER
Scale: 1:1,750 @ A1	BHA_4844_02

DRAWN BY	APPROVED BY	REVISION	SHEET	DATE
TB	IH	A	3 of 8	02/02/2024

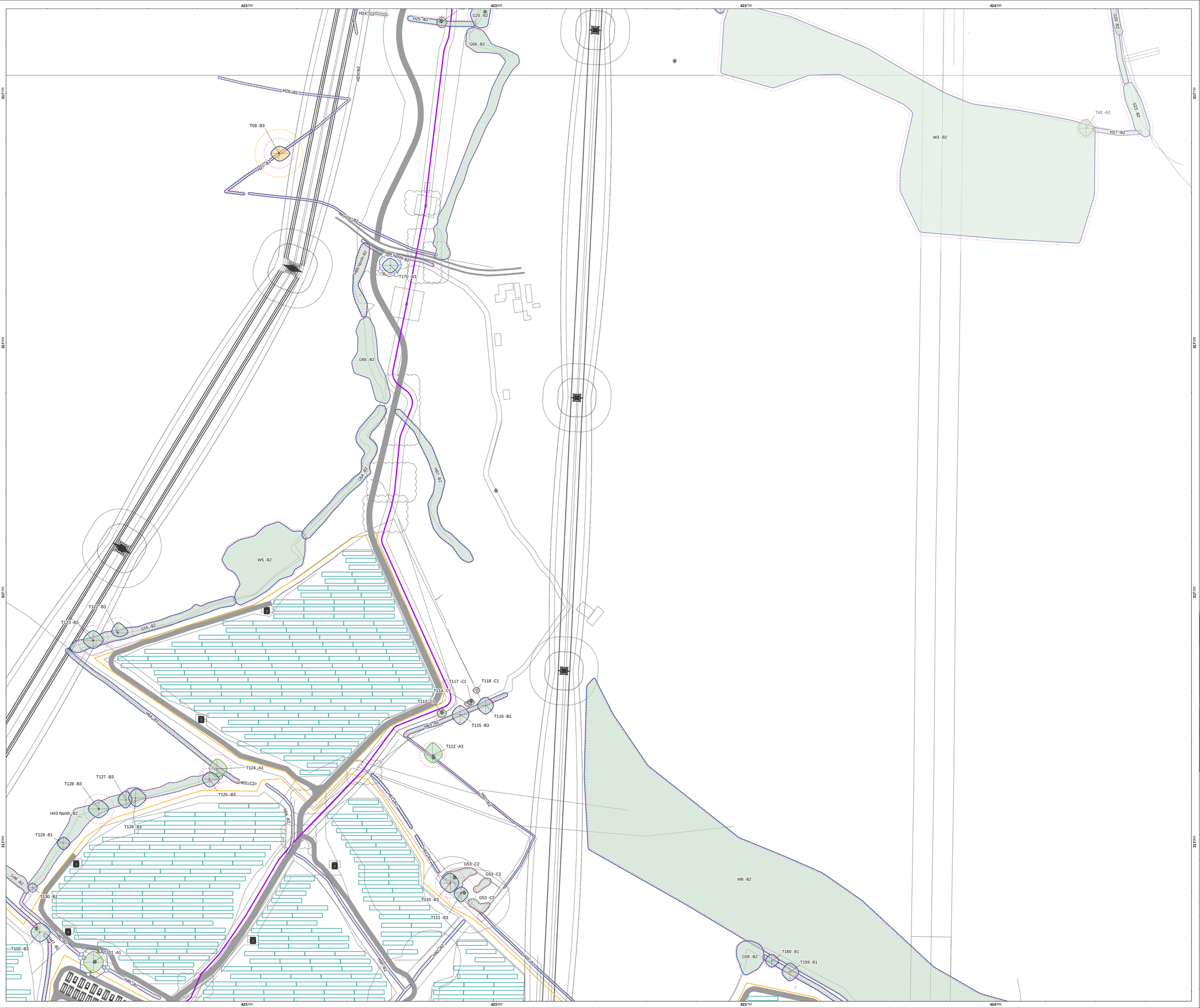
COORDINATE SYSTEM / DATUM: **British National Grid / Newlyn Datum (AOD)**

CLIENT: **Baywa**

CREDITS

Barton Hyett Associates
Arboricultural Consultants

Tel: 01386 576161
Address: Office 5E, Deer Park Business Centre,
Eckington, Pershore, Worcestershire, WR10 3DN



KEY

- Category A Tree - High quality (Retention highly desirable)
- Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
- Category B Tree - Moderate quality (Retention desirable)
- Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
- Category C Tree - Low quality (May be retained but should not constrain development)
- Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)
- Category U Tree - Very low quality (Mostly unsuitable for retention)
- Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)
- Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability
- Shrub mass/offsite tree/out of scope (OOS)
- Tree/Group/Hedgerow not on topographical survey. Location given is an estimate
- Tree / Hedgerow / Group to be removed

Ancient Tree / Woodland or Veteran Trees

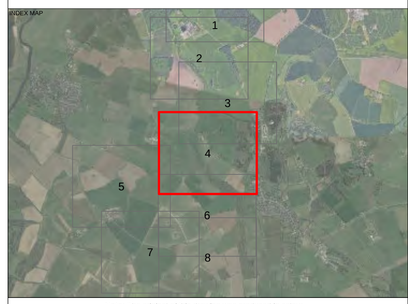
- Ancient tree/woodland or Veteran tree: Important trees that require special consideration
- Ancient tree/woodland or Veteran tree buffer: As per published standing advice from Natural England and the Forestry Commission

Development / Design Guidance

- Recommended Development Area: Area considered appropriate for development in arboricultural terms having considered all arboricultural constraints
- Recommended buffer to development: Appropriate offset from development having considered all arboricultural constraints
- Photo images: Images of key arboricultural features at the site
- Target Note
- Cable Route
- Access Tracks approx 6m Wide
- Security Fence
- Hedgerow reduced to a height of 0.5m
- Trees with level of bat roost suitability – See ES Appendix 6.6 for further details

Target Notes

INDEX MAP



Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

GRID NORTH

0 30 60 120 Meters

PROJECT TITLE

Oaklands Solar Farm (4844)

DRAWING TITLE

Tree Retention and Removal Plan

SCALE	DRAWING NUMBER
Scale: 1:1,750 @ A1	BHA_4844_02

DRAWN BY	APPROVED BY	REVISION	SHEET	DATE
TB	IH	A	4 of 8	02/02/2024

COORDINATE SYSTEM / DATUM: **British National Grid / Newlyn Datum (AOD)**

CLIENT: **Baywa**

Barton Hyett Associates
Arboricultural Consultants

Tel: 01386 576161
Address: Office 5E, Deer Park Business Centre, Eckington, Pershore, Worcestershire, WR10 3DN

KEY

Category A Tree - High quality (Retention highly desirable)

Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)

Category B Tree - Moderate quality (Retention desirable)

Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)

Category C Tree - Low quality (May be retained but should not constrain development)

Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)

Category U Tree - Very low quality (Mostly unsuitable for retention)

Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)

Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability

Shrub mass/offsite tree/out of scope (OOS)

* Tree/Group/Hedgerow not on topographical survey. Location given is an estimate

Tree / Hedgerow / Group to be removed

Ancient Tree / Woodland or Veteran Trees

Ancient tree/woodland or Veteran tree: Important trees that require special consideration

Ancient tree/woodland or Veteran tree buffer: As per published standing advice from Natural England and the Forestry Commission

Development / Design Guidance

Recommended Development Area: Area considered appropriate for development in arboricultural terms having considered all arboricultural constraints

Recommended buffer to development: Appropriate offset from development having considered all arboricultural constraints

Photo images: Images of key arboricultural features at the site

Target Note

Cable Route

Access Tracks approx 6m Wide

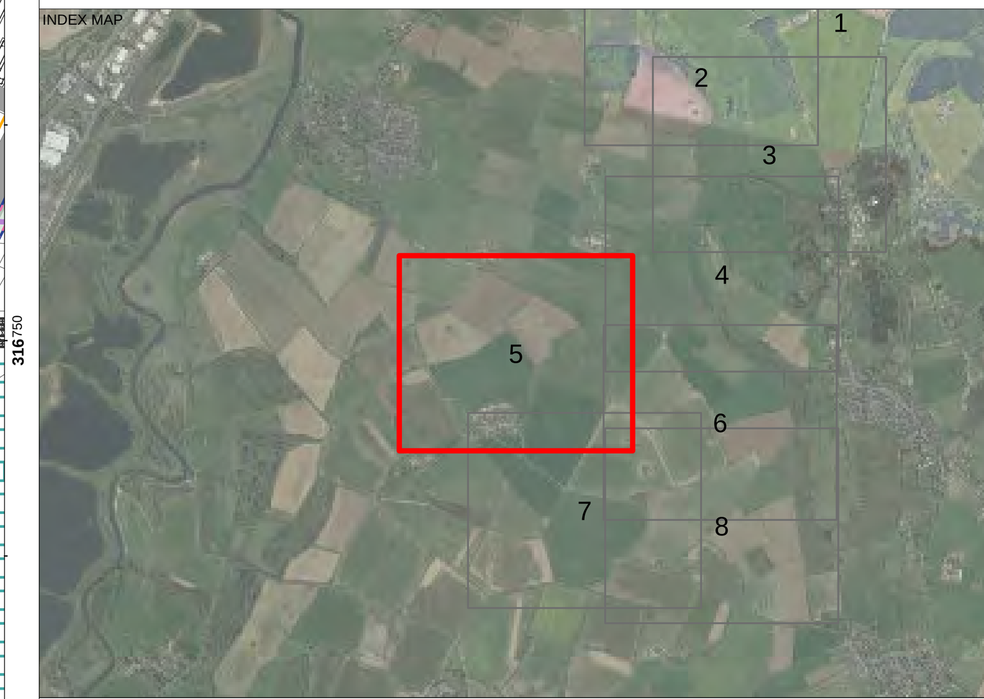
Security Fence

Hedgerow reduced to a height of 0.5m

Trees with level of bat roost suitability – See ES Appendix 6.6 for further details

Target Notes

INDEX MAP



Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

N
GRID NORTH

0 30 60 120 Meters

PROJECT TITLE

Oaklands Solar Farm (4844)

DRAWING TITLE

Tree Retention and Removal Plan

SCALE	Scale: 1:1,750 @ A1	DRAWING NUMBER	BHA_4844_02

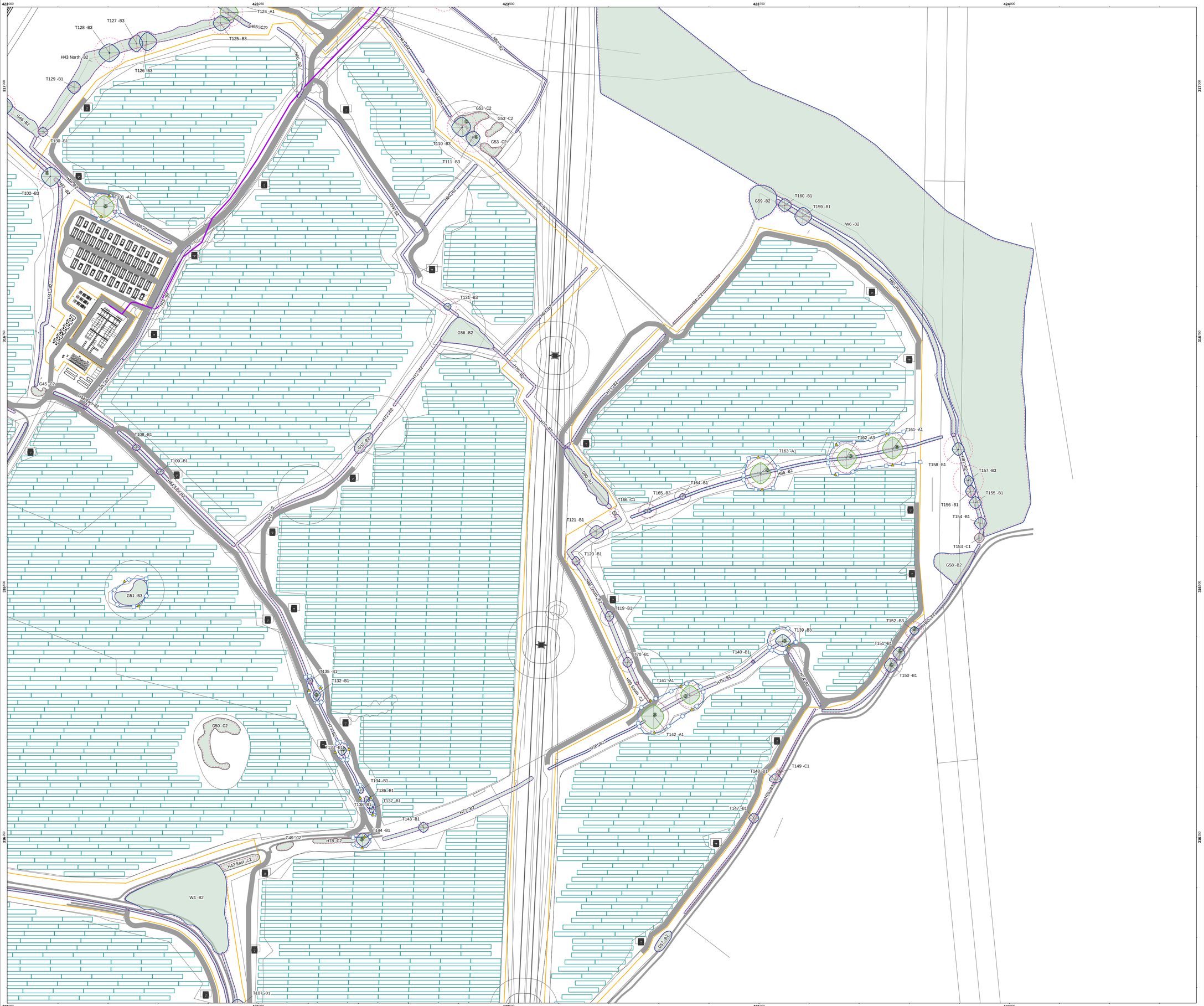
DRAWN BY	APPROVED BY	REVISION	SHEET	DATE
TB	IH	A	5 of 8	02/02/2024

COORDINATE SYSTEM / DATUM: **British National Grid / Newlyn Datum (AOD)**

CLIENT: **Baywa**

Barton Hyett Associates
Arboricultural Consultants

Tel: 01386 576161
Address: Office 5E, Deer Park Business Centre,
Eckington, Pershore, Worcestershire, WR10 3DN



KEY

- Category A Tree - High quality (Retention highly desirable)
- Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
- Category B Tree - Moderate quality (Retention desirable)
- Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
- Category C Tree - Low quality (May be retained but should not constrain development)
- Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)
- Category U Tree - Very low quality (Mostly unsuitable for retention)
- Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)
- Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability
- Shrub mass/offsite tree/out of scope (OOS)
- Tree/Group/Hedgerow not on topographical survey. Location given is an estimate
- Tree / Hedgerow / Group to be removed

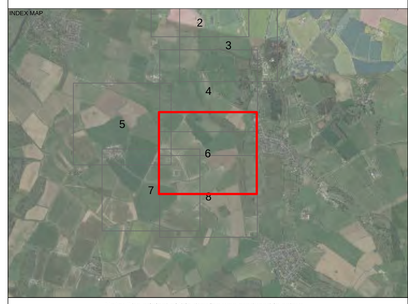
Ancient Tree / Woodland or Veteran Trees

- Ancient tree/woodland or Veteran tree: Important trees that require special consideration
- Ancient tree/woodland or Veteran tree buffer: As per published standing advice from Natural England and the Forestry Commission

Development / Design Guidance

- Recommended Development Area: Area considered appropriate for development in arboricultural terms having considered all arboricultural constraints
- Recommended buffer to development: Appropriate offset from development having considered all arboricultural constraints
- Photo images: Images of key arboricultural features at the site
- Target Note
- Cable Route
- Access Tracks approx 6m Wide
- Security Fence
- Hedgerow reduced to a height of 0.5m
- Trees with level of bat roost suitability – See ES Appendix 6.6 for further details

Target Notes



Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

N
GRID NORTH

0 30 60 120 Meters

PROJECT TITLE

Oaklands Solar Farm (4844)

DRAWING TITLE

Tree Retention and Removal Plan

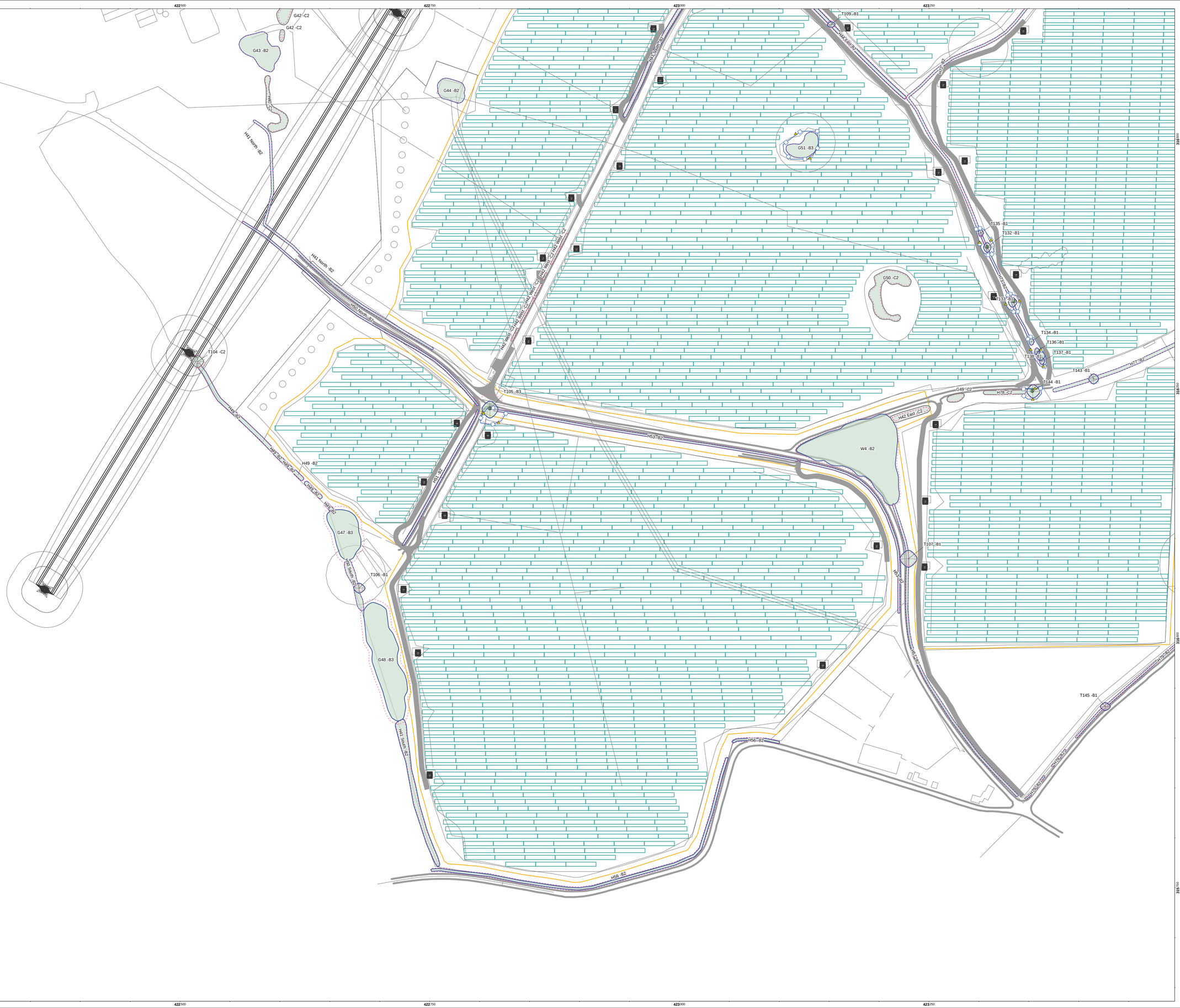
SCALE			DRAWING NUMBER	
Scale: 1:1,750 @ A1			BHA_4844_02	
DRAWN BY	APPROVED BY	REVISION	SHEET	DATE
TB	IH	A	6 of 8	02/02/2024

COORDINATE SYSTEM / DATUM: **British National Grid / Newlyn Datum (AOD)**

CLIENT: **Baywa**

Barton Hyett Associates
Arboricultural Consultants

Tel: 01386 576161
Address: Office 5E, Deer Park Business Centre,
Eckington, Pershore, Worcestershire, WR10 3DN



KEY

- Category A Tree - High quality (Retention highly desirable)
- Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
- Category B Tree - Moderate quality (Retention desirable)
- Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
- Category C Tree - Low quality (May be retained but should not constrain development)
- Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)
- Category U Tree - Very low quality (Mostly unsuitable for retention)
- Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)
- Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability
- Shrub mass/offsite tree/out of scope (OOS)
- Tree/Group/Hedgerow not on topographical survey. Location given is an estimate
- Tree / Hedgerow / Group to be removed

Ancient Tree / Woodland or Veteran Trees

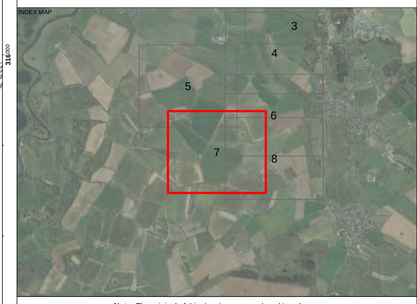
- Ancient tree/woodland or Veteran tree: Important trees that require special consideration
- Ancient tree/woodland or Veteran tree buffer: As per published standing advice from Natural England and the Forestry Commission

Development / Design Guidance

- Recommended Development Area: Area considered appropriate for development in arboricultural terms having considered all arboricultural constraints
- Recommended buffer to development: Appropriate offset from development having considered all arboricultural constraints
- Photo images: Images of key arboricultural features at the site
- Target Note
- Cable Route
- Access Tracks approx 6m Wide
- Security Fence
- Hedgerow reduced to a height of 0.5m
- Trees with level of bat roost suitability – See ES Appendix 6.6 for further details

Target Notes

INDEX MAP



Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

N

GRID NORTH

0 30 60 120 Meters

PROJECT TITLE

Oaklands Solar Farm (4844)

DRAWING TITLE

Tree Retention and Removal Plan

SCALE	DRAWING NUMBER
Scale: 1:1,750 @ A1	BHA_4844_02

DRAWN BY	APPROVED BY	REVISION	SHEET	DATE
TD	IH	A	7 of 8	02/02/2024

COORDINATE SYSTEM / DATUM: **British National Grid / Newlyn Datum (AOD)**

CLIENT: **Baywa**

CREDITS

Barton Hyett Associates
Arboricultural Consultants

Tel: 01386 576161
Address: Office 5E, Deer Park Business Centre,
Eckington, Pershore, Worcestershire, WR10 3DN

KEY

Category A Tree - High quality (Retention highly desirable)

Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)

Category B Tree - Moderate quality (Retention desirable)

Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)

Category C Tree - Low quality (May be retained but should not constrain development)

Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)

Category U Tree - Very low quality (Mostly unsuitable for retention)

Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)

Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability

Shrub mass/offsite tree/out of scope (OOS)

* Tree/Group/Hedgerow not on topographical survey. Location given is an estimate

Tree / Hedgerow / Group to be removed

Ancient Tree / Woodland or Veteran Trees

Ancient tree/woodland or Veteran tree: Important trees that require special consideration

Ancient tree/woodland or Veteran tree buffer: As per published standing advice from Natural England and the Forestry Commission

Development / Design Guidance

Recommended Development Area: Area considered appropriate for development in arboricultural terms having considered all arboricultural constraints

Recommended buffer to development: Appropriate offset from development having considered all arboricultural constraints

Photo images: Images of key arboricultural features at the site

Target Note

Cable Route

Access Tracks approx 6m Wide

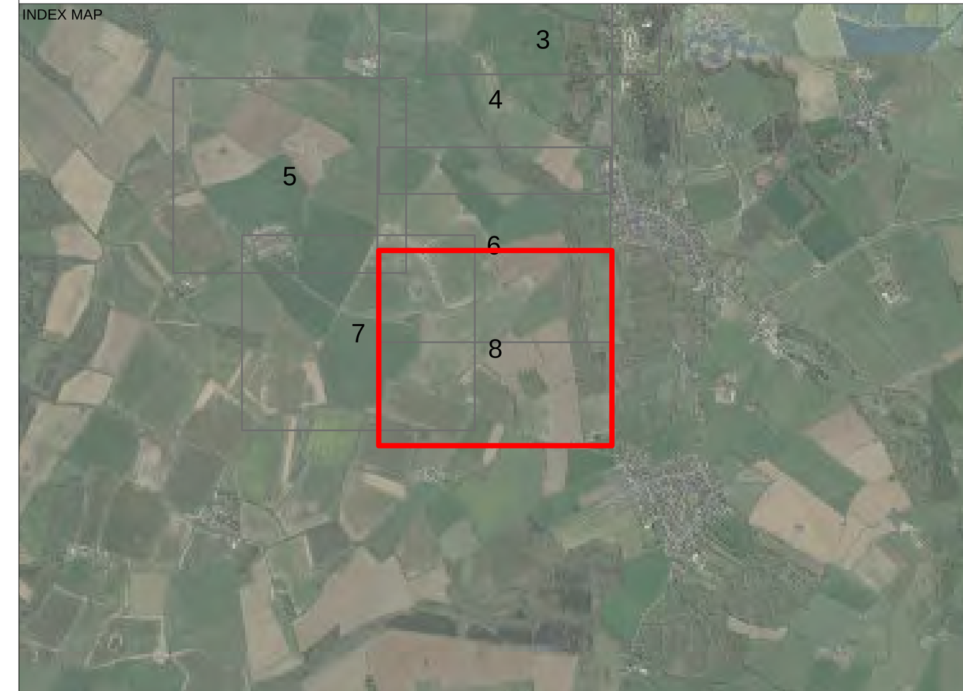
Security Fence

Hedgerow reduced to a height of 0.5m

Trees with level of bat roost suitability – See ES Appendix 6.6 for further details

Target Notes

INDEX MAP



Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

N
GRID NORTH

0 30 60 120 Meters

PROJECT TITLE

Oaklands Solar Farm (4844)

DRAWING TITLE

Tree Retention and Removal Plan

SCALE					DRAWING NUMBER
Scale: 1:1,750 @ A1					BHA_4844_02
DRAWN BY	APPROVED BY	REVISION	SHEET	DATE	
TB	IH	A	8 of 8	02/02/2024	

COORDINATE SYSTEM / DATUM

British National Grid / Newlyn Datum (AOD)

CLIENT

Baywa

CREDITS

Barton Hyett Associates
Arboricultural Consultants

Tel: 01386 576161
Address: Office 5E, Deer Park Business Centre, Eckington, Pershore, Worcestershire, WR10 3DN

KEY

- Category A Tree - High quality (Retention highly desirable)
- Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
- Category B Tree - Moderate quality (Retention desirable)
- Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
- Category C Tree - Low quality (May be retained but should not constrain development)
- Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)
- Category U Tree - Very low quality (Mostly unsuitable for retention)
- Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)
- Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability
- Shrub mass/offsite tree/out of scope (OOS)
- * Tree/Group/Hedgerow not on topographical survey. Location given is an estimate
- Tree / Hedgerow / Group to be removed

Ancient Tree / Woodland or Veteran Trees

- Ancient tree/woodland or Veteran tree: Important trees that require special consideration
- Ancient tree/woodland or Veteran tree buffer: As per published standing advice from Natural England and the Forestry Commission

Development / Design Guidance

- Recommended Development Area: Area considered appropriate for development in arboricultural terms having considered all arboricultural constraints
- Recommended buffer to development: Appropriate offset from development having considered all arboricultural constraints
- Photo images: Images of key arboricultural features at the site

Protection Measures

- Tree Protection Barrier
- Secondary Tree Protection Barrier - location to allow works within CEZ (only in accordance with detailed AMS)
- Cellular Confinement System (see AMS report for specification)
- Temporary Ground Protection to BS 5837:2012
- Permanent Ground Protection to BS 5837:2012
- Area of 'No Dig' Construction to BS 5837:2012
- Construction Exclusion Zone (CEZ) - No work to occur within CEZ without prior approval of Project Arboriculturist and/or LPA. All ground levels to be maintained as existing
- All weather information notices to read 'Construction Exclusion Zone - No Entry' A3 in size. To be attached to tree protection barriers at regular intervals
- Cable Route
- Access Tracks approx 6m Wide
- Security Fence
- Hedgerow reduced to a height of 0.5m
- Trees with level of bat roost suitability – See ES Appendix 6.6 for further details

Target Notes Target Note

Label	Description
TN15(TRR	Existing farm access to be utilised, any re-surfacing is to be laid on top of the existing sub-base
TN16(TRR	Some minor pruning works (crown raising) may be necessary to provide the required site vehicle clearance
TN28(TRR	Temporary widening of the track for truck access/ turning will require temporary ground protection over a cellular confinement system to be utilised

Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

N
GRID NORTH

0 5 10 20 Meters

PROJECT TITLE

Oaklands Solar Farm (4844)

DRAWING TITLE

Tree Retention & Protection Plan Junction

SCALE				DRAWING NUMBER	
Scale: 1:350	**@ A1**			**BHA_4844_02**	
DRAWN BY	APPROVED BY	REVISION	SHEET	DATE	
TB	**IH**	**A**	**of**	**18/12/2023**	

COORDINATE SYSTEM / DATUM: **British National Grid / Newlyn Datum (AOD)**

CLIENT: **Baywa**

Barton Hyett Associates
Arboricultural Consultants

Tel: 01386 576161
Address: Office 5E, Deer Park Business Centre,
Eckington, Pershore, Worcestershire, WR10 3DN

BS5837:2012 TREE SURVEY SCHEDULE

OAKLANDS SOLAR FARM

PROJECT NO: 4844

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett
Arboricultural Consultants

INDIVIDUAL TREES

Ref	Species	On/off	Top Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. low crown height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²	Veteran/ Ancient Tree or ANSW buffer radius (m)	TPO?
T1	Lime (Common)	On	18	1	None	750	5-5-5-5	5.0	4	SE	M	None	Individual tree at northern end of Avenue; basal growth; pollarded in past. Better when considered collectively.	Fair	Good	40+	B1	9	254	-	-
T2	Lime (Common)	On	18	1	None	860	6-5-5-5	2.5	4	W	M	None	Avenue tree; epicormic growth to stem/lower canopy; some deadwood but good form.	Good	Good	40+	A2	10.3	335	-	-
T3	Oak (English)	On	14	1	None	1250	8-8-9-8	3.0	4	N	M	None	Obviously larger tree located within field interior; historic buttress damage with exposed heartwood; minor deadwood; good form.	Good	Fair	40+	A2	15	707	-	-
T4	Oak (English)	On	18	1	None	900	8-7-8-8	5.0	3	SW	M	None	Hedgerow tree located adjacent to highway; ivy to stem; typical form. Prominent.	Good	Good	40+	A2	10.8	366	-	-
T5	Ash (Common)	On	12.5	1	Yes	600	5-5-5-5	4.0	4	W	EM	None	Roadside tree; ivy obscuring stem; typical form. No evidence of dieback within canopy.	Fair	Good	20+	B2	7.2	163	-	-
T6	Lime (Common)	On	16	1	None	810	7-7-6-6	2.0	4	S	M	None	Individual tree located adjacent to access drive; epicormic growth to stem/lower canopy; minor dieback within canopy.	Good	Good	40+	B1	9.7	297	-	-
T7	Lime (Common)	On	15	1	None	800	7-6-6-6	2.5	4	S	M	None	Individual tree; epicormic growth to stem/lower canopy; minor dieback to canopy. Typical form. Better as part of collective avenue.	Good	Good	40+	B1	9.6	290	-	-

BS5837:2012 TREE SURVEY SCHEDULE

OAKLANDS SOLAR FARM

PROJECT NO: 4844

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett Arboricultural Consultants

Ref	Species	On/off	Top Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. low crown height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²	Veteran/ Ancient Tree or ANSW buffer radius (m)	TPO?
T8	Lime (Common)	On	11	1	None	700	5-5-4-5	2.0	2.5	N	M	None	Individual tree located on field edge. Historic damage to base of stem with some decay; obvious canopy dieback.	Fair	Fair	10+	C1	8.4	222	-	-
T9	Lime (Common)	On	13	1	None	750	5-5-5-6	2.5	4	S	M	None	Tree located on field edge; epicormic growth to stem/lower canopy. Exudate to stem; obvious canopy dieback.	Fair	Good	20+	B1	9	254	-	-
T10	Chestnut (Horse)	On	15.5	1	None	940	8-7-8-8	2	3	E	M	None	Individual tree close to larger group; obvious stem damage; historic limb failures in past; poor form but prominent.	Good	Fair	20+	B2	11.3	400	-	-
T11	Chestnut (Horse)	On	13.5	1	None	930	6-6-6-7	3	3	W	M	None	Mature individual tree; good form; part of larger avenue.	Fair	Good	20+	B1	11.2	391	-	-
T12	Chestnut (Horse)	On	5.5	1	None	250	2-2-2-2	2.5	1.5	W	SM	None	Newly established tree located within avenue; canker to stem.	Fair	Good	10+	C1	3	28	-	-
T13	Chestnut (Horse)	On	16.5	1	None	1030	8-7-9-8	2.5	3	S	M	None	Mature individual tree located within avenue. Good form.	Good	Good	20+	B1	12.4	480	-	-
T14	Chestnut (Horse)	On	6	1	None	1130	5-5-2-2	2.5	2.5	N	M	None	Tree within avenue. Major stem failure in past. Major decay to stem. Some ecological value.	Fair	Poor	<10	C3	13.6	578	-	-
T15	Chestnut (Horse)	On	13	1	None	1030	2-4-5-2	4	3	S	M	None	Standing dead tree.	Poor	Poor	<10	U	12.4	480	-	-
T16	Chestnut (Horse)	On	14.5	1	None	1040	6-7-5-3	3	3	W	M	None	Tree part of avenue; sever dieback within canopy; large deadwood. Most of tree canopy dead.	Poor	Poor	<10	C3	12.5	489	-	-

BS5837:2012 TREE SURVEY SCHEDULE

OAKLANDS SOLAR FARM

PROJECT NO: 4844

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett Arboricultural Consultants

Ref	Species	On/off	Top Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. low crown height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²	Veteran/ Ancient Tree or ANSW buffer radius (m)	TPO?
T17	Chestnut (Horse)	On	14	1	None	920	8-9-10-9	3	2.5	W	M	None	Part of avenue and adjacent to highway; good form.	Good	Good	20+	B1	11	383	-	-
T18	Chestnut (Horse)	On	17	1	None	1110	8-9-9-8	2	3	N	M	None	Tree part of original avenue; larger than adjacent tree. Adjacent to highway. Typical form with some dieback.	Good	Good	20+	B1	13.3	557	-	-
T19	Ash (Common)	On	13	1	None	720	6-6-6-6	4	2.5	NE	M	None	Tree located within field interior; large cavity to stem with decay - good adaptive growth around wound.; minor canopy dieback.	Fair	Poor	10+	C3	8.6	235	-	-
T20	Oak (English)	On	12.5	1	None	800	6-6-6-5	2.5	2	N	M	None	Tree located on edge of field; cavity to stem with moderate decay; deadwood within canopy. Squat form.	Good	Fair	20+	B2	9.6	290	-	-
T21	Chestnut (Sweet)	On	7	1	Yes	300	5-5-4-5	2.5	2	N	EM	None	Early mature tree located within field interior. Good form.	Good	Good	40+	B2	3.6	41	-	-
T22	Pear	On	3.5	1	None	340	1-1-0-0	2	2.5	E	LM	None	Old pear tree; section of stem failed in past; minor canopy. Low value although some ecological value.	Fair	Poor	<10	C3	4.1	52	-	-
T23	Hawthorn	On	5.5	3	None	380	3-3-3-3	2	2	W	M	None	Part of older hedgerow but now individual tree. Typical form.	Good	Good	20+	C2	4.5	65	-	-
T24	Cherry (Ornamental flowering)	On	3.5	1	Yes	100	1-1-1-1	1	1	W	Y	None	Recently established tree.	Good	Good	20+	C1	1.3	5	-	-
T25	Lime (Common)	On	17	1	None	1030	6-6-6-6	2	2.5	W	M	None	Mature tree within garden area; typical form; epicormic growth to stem/lower canopy; hung up limbs within canopy.	Good	Good	40+	A2	12.4	480	-	-

BS5837:2012 TREE SURVEY SCHEDULE

PROJECT NO: 4844

OAKLANDS SOLAR FARM

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett Arboricultural Consultants

Ref	Species	On/off	Top Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. low crown height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²	Veteran/ Ancient Tree or ANSW buffer radius (m)	TPO?
T26	Chestnut (Horse)	On	17	1	None	1020	7-7-7-6	2.5	3	S	M	None	Mature tree located within garden area; good form/condition.	Good	Good	20+	A2	12.2	471	-	-
T27	Chestnut (Horse)	On	16	1	None	910	7-6-6-7	2	1.5	W	M	None	Mature tree located within garden area; good form/condition.	Good	Good	20+	A2	10.9	375	-	-
T28	Chestnut (Horse)	On	8	1	None	300	3-3-2-2	2.5	2	E	EM	None	Tree located within garden area; canker infection; good form.	Fair	Good	20+	B2	3.6	41	-	-
T29	Oak (English)	On	7.5	1	Yes	450	5-4-5-4	1.5	1	N	EM	None	Individual tree located within garden area. Good form.	Good	Good	40+	B2	5.4	92	-	-
T30	Lime (Common)	On	15	1	None	800	5-5-6-6	2	3	N	M	Veteran	Tree located on edge of drive/garden; good form; epicormic growth to stem.	Good	Good	20+	B1	9.6	290	12.0	-
T31	Oak (English)	On	16.5	1	None	890	8-6-8-8	4	1	N	M	None	Obviously larger tree located on edge of wooded group. Typical form although suppressed.	Good	Good	40+	B1	10.7	358	-	-
T32	Oak (English)	On	19	1	None	850	9-8-9-10	4	4	E	M	Veteran	Obviously larger tree located on the edge of the wooded area; good form. Minor deadwood within canopy.	Good	Good	40+	A2	10.2	327	15.0	-
T33	Oak (English)	On	17	2	Yes	640	6-7-8-9	5	3	NW	EM	None	Twin-stemmed tree located on edge of larger woodland; good form.	Good	Fair	40+	B1	7.7	185	-	-
T34	Chestnut (Horse)	On	11	1	Yes	700	5-5-6-5	4	4	W	M	None	Tree located on field edge; ditch directly to east. Adjacent highway. Typical form.	Good	Good	20+	B1	8.4	222	-	Yes

BS5837:2012 TREE SURVEY SCHEDULE

PROJECT NO: 4844

OAKLANDS SOLAR FARM

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett
Arboricultural Consultants

Ref	Species	On/off	Top Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. low crown height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²	Veteran/ Ancient Tree or ANSW buffer radius (m)	TPO?
T35	Chestnut (Horse)	On	15	1	None	800	7-6-7-6	4	4	N	M	None	Tree located on field edge; ivy to stem; lower limb removal in past; prominent. Ditch directly to east of stem; adjacent to highway. Ploughline within 2m of stem.	Good	Good	20+	B1	9.6	290	-	Yes
T36	Ash (Common)	On	20	1	None	1400	11-9-8-9	5	4	S	M	None	Large tree located within field interior. Cavity to stem with moderate decay. Many inonotus brackets; dead leader. Epicormic growth to stem. Some canopy dieback.	Fair	Fair	10+	B3	15	707	-	Yes
T37	Chestnut (Horse)	On	14	1	Yes	900	7-7-8-7	5	4	S	M	None	Tree located on field edge; typical form; adjacent to highway. Limited access.	Fair	Good	20+	B1	10.8	366	-	-
T38	Ash (Common)	On	15	5	None	820	6-6-6-6	4	3	S	M	None	Multi-stemmed tree located on field edge; some canopy dieback. Prominent.	Fair	Fair	10+	C2	9.8	304	-	-
T39	Oak (English)	On	17	1	None	1210	7-7-8-6	3	2.5	W	M	None	Mature tree located within field interior. Prominent. Some retrenchment within upper canopy with some deadwood.	Fair	Good	20+	B1	14.5	662	-	-
T40	Poplar (Lombardy)	On	24	1	None	850	3-2-2-2	3	2.5	N	M	None	Individual tree located close to larger group. Typical form; some minor hung up limbs.	Good	Fair	10+	B2	10.2	327	-	-
T41	Oak (English)	On	13	1	None	850	7-10-7-7	3	2.5	N	M	None	Hedgerow tree; typical form; some deadwood within canopy.	Good	Good	40+	B1	10.2	327	-	-

BS5837:2012 TREE SURVEY SCHEDULE

PROJECT NO: 4844

OAKLANDS SOLAR FARM

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett Arboricultural Consultants

Ref	Species	On/off	Top Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. low crown height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m^2	Veteran/ Ancient Tree or ANSW buffer radius (m)	TPO?
T42	Oak (English)	Off	14	1	Yes	800	9-7-8-8	5	2	E	M	None	Obviously larger tree located on the edge of wooded area; broad spreading form. Limited access.	Good	Good	40+	A2	9.6	290	-	-
T43	Oak (English)	On	11	1	None	700	7-6-8-7	3	2.5	SW	M	None	Large hedgerow tree; open form. Minor retrenchment.	Fair	Good	20+	B1	8.4	222	-	-
T44	Oak (English)	On	12.5	1	None	850	4-5-6-4	5	2.5	S	M	None	Obviously large4 tree locate£ within boundary hedgerow; typical hedgerow tree; some retrenchment.	Fair	Good	40+	A2	10.2	327	-	-
T45	Oak (English)	On	13	1	Yes	600	6-5-6-5	4.5	3.5	N	M	None	Hedgerow tree; suppressed form; ivy to stem.	Good	Good	40+	B1	7.2	163	-	-
T46	Oak (English)	On	12	1	None	880	3-2-2-3	7	5	S	M	None	Standing dead tree. Remove if land use changes	Poor	Poor	<10	U	10.6	350	-	-
T47	Oak (English)	On	15	1	None	1030	6-11-8-8	3	3	E	M	None	Tree located within field interior; good form; minor retrenchment.	Good	Good	40+	A2	12.4	480	-	-
T48	Oak (English)	On	17.5	1	None	1020	8-7-9-7	4	4	S	M	None	Tree located within field interior. Good form; swelling to stem at base.	Good	Fair	40+	A2	12.2	471	-	-
T49	Ash (Common)	On	19	1	Yes	1100	8-10-8-9	4	1	W	M	None	Large tree located within boundary group; substantial in size; some cavities to stem/major branches. Prominent tree. Limited access;	Fair	Fair	20+	B2	13.2	547	-	-
T50	Ash (Common)	On	18.5	1	Yes	800	8-9-7-8	5	2.5	S	M	None	Obviously larger tree located within boundary group. Located adjacent to watercourse. Ivy obscuring stem; typical form.	Good	Good	20+	B1	9.6	290	-	-

BS5837:2012 TREE SURVEY SCHEDULE

OAKLANDS SOLAR FARM

PROJECT NO: 4844

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett
Arboricultural Consultants

Ref	Species	On/off	Top Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. low crown height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²	Veteran/ Ancient Tree or ANSW buffer radius (m)	TPO?
T51	Ash (Common)	On	19	1	Yes	1000	8-9-7-9	5	4	N	M	None	Obviously larger tree located within larger boundary group. Ivy obscuring stem. No access to stem; canopy lifted in past. Prominent.	Good	Good	20+	B1	12	452	-	-
T52	Ash (Common)	On	16	1	None	800	8-10-9-8	4	3	E	M	None	Obviously larger tree within group; some dieback within canopy; lean to east. Adjacent to watercourse.	Fair	Fair	10+	B2	9.6	290	-	-
T53	Willow	On	16	2	None	750	3-3-3-3	8	4	N	M	None	Dead standing tree. Remove if land use changes.	Poor	Poor	<10	U	9	254	-	-
T54	Alder (Common)	On	8	3	None	350	2-2-2-2	1.5	1	N	EM	None	Individual multi-stemmed tree located in open area. Typical form.	Good	Good	20+	B2	4.2	55	-	-
T55	Oak (English)	Off	17.5	1	None	1010	8-5-9-7	1	2	N	M	None	Mature tree within interior of field; good form. Minor retrenchment within canopy.	Fair	Good	40+	A2	12.1	461	-	-
T56	Oak (English)	Off	19	1	None	1560	10-10-12-10	4	2.5	N	M	Ancient	Mature tree located within field interior; historic lower limb failure; substantial tree.	Good	Good	40+	A2	15	707	23.4	-
T57	Oak (English)	Off	18	1	None	1510	12-12-11-13	4	3	N	M	Ancient	Substantial tree located on the field boundary; broad spreading form; some minor retrenchment.	Good	Good	40+	A2	15	707	22.65	-
T58	Ash (Common)	Off	12	1	Yes	500	5-5-6-5	3	1	S	EM	None	Standard hedgerow tree; ivy to stem; obvious decline/ dieback within canopy.	Poor	Fair	10+	C1	6	113	-	-

BS5837:2012 TREE SURVEY SCHEDULE

OAKLANDS SOLAR FARM

PROJECT NO: 4844

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett Arboricultural Consultants

Ref	Species	On/off	Top Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. low crown height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m^2	Veteran/ Ancient Tree or ANSW buffer radius (m)	TPO?
T59	Willow	Off	11	1	None	1600	7-11-8-8	2	2.5	E	LM	Ancient	Old willow pollard stool; extensive decay to stem; substantial regrowth since last pollard; regrowth flailed and resting on floor. Re-pollard to preserve stem.	Fair	Poor	10+	B3	15	707	24.0	-
T60	Oak (English)	On	9	2	Yes	680	5-6-6-5	3	1	S	SM	None	Establishing hedgerow oak tree	Good	Good	40+	B2	8.2	209	-	-
T61	Oak (English)	On	9	1	Yes	400	5-5-4-3	3	1	W	SM	None	Establishing oak tree located west of the hedgerow in the roadside verge	Good	Good	40+	B2	4.8	72	-	-
T62	Oak (English)	On	18	1	None	1020	7-10-10-10	5	3	W	M	None	Mature oak tree located east of the hedgerow at boundary	Good	Good	40+	A2	12.2	471	-	-
T63	Oak (English)	On	18	1	None	940	10-9-6-10	5	3	W	M	None	Mature oak tree located east of the hedgerow at boundary	Good	Good	40+	A2	11.3	400	-	-
T64	Oak (English)	On	14	1	None	920	8-9-9-8	5	4	N	M	None	Mature oak tree within the hedgerow	Good	Good	40+	B1	11	383	-	-
T65	Oak (English)	On	15	1	None	840	8-9-9-8	5	6	S	M	None	Mature oak tree within the hedgerow	Good	Good	40+	B1	10.1	319	-	-
T66	Ash (Common)	On	6	1	Yes	190	4-4-3-3	4	2	-	Y	None	Y to SM tree establishing within the hedgerow	Good	Good	40+	C1	2.3	16	-	-
T67	Ash (Common)	On	6	1	Yes	220	4-5-3-4	4	2	N	Y	None	Y to SM tree establishing within the hedgerow	Good	Good	40+	C1	2.6	22	-	-
T68	Ash (Common)	On	21	1	None	1460	6-8-12-10	9	3	E	LM	None	Large and mature woodland edge tree with an abundance of deadwood habitat; cavities in stems. Overhanging by up to 12m	Fair	Fair	40+	B3	15	707	-	-

BS5837:2012 TREE SURVEY SCHEDULE

PROJECT NO: 4844

OAKLANDS SOLAR FARM

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett Arboricultural Consultants

Ref	Species	On/off	Top Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. low crown height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²	Veteran/ Ancient Tree or ANSW buffer radius (m)	TPO?
T69	Oak (English)	On	1519	1	None	1380	11-10-9-10	6	6	-	M	None	Mature oak tree within the hedgerow. Large stem diameter. Hollowed stem; large diameter branch stubs and tear outs	Good	Good	40+	A3	15	707	-	-
T70	Oak (English)	On	8	1	Yes	400	5-5-4-4	5	3	N	SM	None	Establishing tree located within the hedgerow	Good	Good	40+	B1	4.8	72	-	-
T71	Holly	On	8	1	Yes	400	3-4-3-4	0.1	0.5	-	EM	None	Holly tree located within and growing above the height of the hedgerow	Good	Fair	40+	B2	4.8	72	-	-
T72	Holly	On	5.5	1	Yes	400	3-4-3-4	0.1	0.5	-	EM	None	Holly tree located within and growing above the height of the hedgerow	Good	Fair	40+	B2	4.8	72	-	-
T73	Ash (Common)	On	21	1	Yes	880	9-8-8-8	4	3	NE	M	None	Mature ash located within the scrub at boundary	Good	Good	40+	B1	10.6	350	-	-
T74	Oak (English)	On	18.5	1	Yes	880	10-8-5-7	6	3	SE	M	None	Mature oak in a state of decline located within the scrub at boundary. Deadwood throughout crown	Good	Good	40+	B3	10.6	350	-	-
T75	Willow (Crack)	On	8	1	Yes	1500	5-8-7-5	0.5	0.5	-	M	None	Mature and partially collapsed/decaying willow coppice/pollard; located within the scrub at boundary. Good habitat tree	Good	Fair	40+	B3	15	707	-	-
T76	Oak (English)	On	9	1	Yes	600	5-5-5-5	2.5	1	W	EM	None	Establishing oak located within the scrub at boundary	Good	Good	40+	B1	7.2	163	-	-
T77	Holly	On	5.5	1	Yes	400	3-5-3-4	0.1	0.5	-	EM	None	Holly tree located within and growing above the height of the hedgerow	Good	Fair	40+	B2	4.8	72	-	-
T78	Holly	On	5.5	1	Yes	400	1-4-3-4	0.1	0.5	-	EM	None	Holly tree located within and growing above the height of the hedgerow	Good	Fair	40+	B2	4.8	72	-	-

BS5837:2012 TREE SURVEY SCHEDULE

OAKLANDS SOLAR FARM

PROJECT NO: 4844

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett Arboricultural Consultants

Ref	Species	On/off	Top Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. low crown height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²	Veteran/ Ancient Tree or ANSW buffer radius (m)	TPO?
T79	Elm (English)	On	6	10	Yes	250	3-3-3-3	3	0.5	-	EM	None	Hedgerow coppice	Good	Fair	40+	C1	3	28	-	-
T80	Holly	On	6	1	Yes	300	3-3-3-3	3	0.5	-	EM	None	Hedgerow tree; slightly reduced vitality	Fair	Fair	40+	C1	3.6	41	-	-
T81	Oak (English)	On	14	1	None	720	6-7-7-7	5	5	W	EM	None	Early mature oak tree within the hedgerow	Good	Good	40+	B1	8.6	235	-	-
T82	Oak (English)	On	8	1	Yes	350	6-6-6-6	4	4	-	SM	None	Establishing hedgerow oak tree of good form and condition located within the hedgerow	Good	Good	40+	B1	4.2	55	-	-
T83	Oak (English)	On	14	1	None	800	6-7-7-7	5	5	S	M	None	Hedgerow oak tree of good form and condition	Good	Good	40+	B1	9.6	290	-	-
T84	Oak (English)	On	6	1	Yes	280	3-4-4-4	2	2	-	SM	None	Establishing hedgerow oak tree of good form and condition located within the hedgerow	Good	Good	40+	B1	3.3	35	-	-
T85	Oak (English)	On	13	1	None	830	7-7-7-7	3	3	-	M	None	Open grown oak tree of good form and condition. Some longitudinal wounds on main stem and structural limbs provides niche deadwood habitat	Good	Good	40+	B3	10	312	-	-
T86	Oak (English)	On	13	1	Yes	1500	7-8-8-9	2	1	SE	M	Veteran	Mature hedgerow oak. Upper crown has torn out; likely historic storm damage. Large hollowing stem; good habitat tree	Good	Good	40+	A3	15	707	22.5	-
T87	Oak (English)	On	16	1	Yes	850	9-9-9-9	5	4	E	EM	None	Hedgerow oak of good form and condition	Good	Good	40+	B1	10.2	327	-	-
T88	Ash (Common)	On	15	1	Yes	450	7-7-7-7	6	5	N	EM	None	Hedgerow tree of good form and condition	Good	Good	40+	B1	5.4	92	-	-
T89	Ash (Common)	On	14	2	Yes	600	6-6-6-6	5	3	N	EM	None	Hedgerow tree of good form and condition	Good	Good	40+	B1	7.2	163	-	-

BS5837:2012 TREE SURVEY SCHEDULE

PROJECT NO: 4844

OAKLANDS SOLAR FARM

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett Arboricultural Consultants

Ref	Species	On/off	Top Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. low crown height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²	Veteran/ Ancient Tree or ANSW buffer radius (m)	TPO?
T90	Ash (Common)	On	14	2	Yes	490	6-6-7-6	5	3	N	EM	None	Hedgerow tree of good form and condition	Good	Good	40+	B1	5.9	109	-	-
T91	Ash (Common)	On	12	1	Yes	650	5-5-6-5	3	3	-	EM	None	Located within the field east of the hedgerow	Good	Good	40+	B1	7.8	191	-	-
T92	Ash (Common)	On	13	2	Yes	600	6-6-6-5	5	4	-	EM	None	Hedgerow tree; reduced vitality in upper crown	Fair	Fair	40+	C1	7.2	163	-	-
T93	Oak (English)	On	12	1	Yes	1140	7-7-5-6	4	3	-	M	None	Open grown oak tree with a large stem diameter and retrenched crown; stem hollowing. Veteran characteristics but not yet of true veteran form	Good	Fair	40+	A3	13.7	588	-	-
T94	Ash (Common)	On	11	3	Yes	310	4-4-4-4	5	3	-	SM	None	Hedgerow tree; slightly reduced vitality	Fair	Fair	40+	C1	3.7	43	-	-
T95	Ash (Common)	On	12	1	Yes	260	5-5-4-4	5	4	-	SM	None	Hedgerow tree; slightly reduced vitality	Fair	Fair	40+	C1	3.1	31	-	-
T96	Ash (Common)	On	16	1	Yes	580	8-8-6-6	5	5	-	M	None	Hedgerow tree; reduced vitality in upper crown; large tear out and Inonotus Hispidus fungal fruiting bodies on stems.	Fair	Fair	40+	C1	7	152	-	-
T97	Oak (English)	On	18	1	None	960	10-9-5-7	6	5	N	M	None	Open grown oak tree with a large stem diameter and storm damaged crown. Veteran characteristics but not yet of true veteran form	Good	Fair	40+	A3	11.5	417	-	-
T98	Oak (English)	On	21	1	None	1350	11-10-10-10	6	5	SW	M	None	Open grown oak tree with a large stem diameter and storm damaged crown. Veteran characteristics but not yet of true veteran form	Good	Good	40+	A3	15	707	-	-

BS5837:2012 TREE SURVEY SCHEDULE

PROJECT NO: 4844

OAKLANDS SOLAR FARM

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett Arboricultural Consultants

Ref	Species	On/off	Top Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. low crown height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m^2	Veteran/ Ancient Tree or ANSW buffer radius (m)	TPO?
T99	Poplar (Hybrid black)	On	12	1	Yes	400	6-6-6-5	2	2	-	SM	None	Establishing tree; slightly reduced vitality	Fair	Fair	40+	C1	4.8	72	-	-
T100	Oak (English)	On	13	1	None	920	6-7-8-7	5	4	S	EM	None	Open grown oak tree with a storm damaged crown and stem. Possibly struck by lightning. Veteran characteristics but not of true veteran form	Fair	Fair	40+	B3	11	383	-	-
T101	Oak (English)	On	15	1	None	1040	11-10-10-10	4	4.5	E	M	None	Oak of particularly good form and condition; some deadwood throughout crown	Good	Good	40+	A1	12.5	489	-	-
T102	Ash (Common)	On	15	1	None	1020	9-10-10-9	5	4	-	M	None	Mature ash; reduced vitality in upper crown; some cavities and dead branches. Existing compacted earth farm track to the north	Good	Good	40+	B3	12.2	471	-	-
T103	Ash (Common)	On	19	1	Yes	1000	10-9-9-10	5	4	NW	M	None	Mature ash; some cavities and branch tear outs . Existing compacted earth farm track to the south	Good	Good	40+	B3	12	452	-	-
T104	Ash (Common)	On	14	8	Yes	570	6-6-6-6	4	0.5	-	M	None	Lapsed hedgerow coppice adjacent to the overhead wires	Good	Fair	40+	C2	6.8	147	-	-
T105	Oak (English)	On	15	2	None	1220	8-8-9-8	5.5	4	S	M	None	Located adjacent to the highway and existing compacted stone field access track. Co-dominant stem has failed at 3-4m. Some deadwood habitat throughout crown	Good	Good	40+	B3	14.6	673	-	-
T106	Pine (Scots)	On	12	1	Yes	320	5-6-5-5	5	5	SE	EM	None	Pine of good form and condition located on a raised bank at boundary	Good	Good	40+	B1	3.8	46	-	-

BS5837:2012 TREE SURVEY SCHEDULE

OAKLANDS SOLAR FARM

PROJECT NO: 4844

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett Arboricultural Consultants

Ref	Species	On/off	Top Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. low crown height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²	Veteran/ Ancient Tree or ANSW buffer radius (m)	TPO?
T107	Ash (Common)	On	21	1	Yes	550	8-8-8-8	6.5	5	-	M	None	Hedgerow tree of good form and condition	Good	Good	40+	B1	6.6	137	-	-
T108	Holly	On	8	1	Yes	350	3-4-3-4	4	0.5	-	M	None	Mature holly located within; and growing above the height of the hedgerow	Good	Fair	40+	B1	4.2	55	-	-
T109	Holly	On	6	1	Yes	350	3-4-3-4	4	0.5	-	M	None	Mature holly located within; and growing above the height of the hedgerow	Good	Fair	40+	B1	4.2	55	-	-
T110	Poplar (Hybrid black)	On	26	1	Yes	1300	10-8-9-10	7	8	E	M	None	Tall and prominent tree. Some storm damage in crown has left large diameter branch stubs/ deadwood habitat	Good	Fair	40+	B3	15	707	-	-
T111	Poplar (Hybrid black)	On	18	1	Yes	1300	6-7-9-7	4	3	S	M	None	Dense ivy obscures most of the stem and inner canopy	Good	Fair	40+	B3	15	707	-	-
T112	Ash (Common)	On	18	1	Yes	1050	12-10-8-8	4	4	W	M	None	Mature ash with adaptive growth at the buttresses/root collar. Prominent and mature tree; some large diameter branch stubs in crown and hollowing of stems	Good	Fair	40+	A3	12.6	499	-	-
T113	Ash (Common)	On	12	1	Yes	400	5-5-4-4	4	3	-	SM	None	Establishing ash adjacent to an a narrow access track. Included union at 2m	Good	Fair	40+	C1	4.8	72	-	-
T114	Ash (Common)	On	12	1	Yes	150	3-3-3-4	4	3	-	Y	None	Establishing ash adjacent to an a narrow access track.	Good	Fair	40+	C1	1.8	10	-	-
T115	Ash (Common)	On	18	1	Yes	680	9-9-10-8	6	5.5	N	M	None	Mature ash with a woodpecker whole mid crown. Located adjacent to a narrow access track	Good	Fair	40+	B3	8.2	209	-	-

BS5837:2012 TREE SURVEY SCHEDULE

OAKLANDS SOLAR FARM

PROJECT NO: 4844

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett Arboricultural Consultants

Ref	Species	On/off	Top Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. low crown height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²	Veteran/ Ancient Tree or ANSW buffer radius (m)	TPO?
T116	Ash (Common)	On	18	1	Yes	680	8-8-9-8	7	7	S	M	None	Mature ash with slightly reduced vitality in upper crown Located adjacent to a narrow access track	Good	Fair	40+	B1	8.2	209	-	-
T117	Ash (Common)	On	12	1	Yes	150	3-3-3-4	4	3	-	Y	None	Establishing ash adjacent to an a narrow access track.	Good	Fair	40+	C1	1.8	10	-	-
T118	Ash (Common)	On	12	1	Yes	150	3-3-3-4	4	3	-	Y	None	Establishing ash adjacent to an a narrow access track.	Good	Fair	40+	C1	1.8	10	-	-
T119	Oak (English)	On	9	1	Yes	420	5-4-4-4	5	3	N	SM	None	Establishing tree located within the hedgerow	Good	Good	40+	B1	5	80	-	-
T120	Ash (Common)	On	10	1	Yes	320	5-4-3-4	5	3	N	SM	None	Establishing tree located within the hedgerow	Good	Good	40+	B1	3.8	46	-	-
T121	Ash (Common)	On	15	6	Yes	490	6-7-6-7	5	0.5	-	EM	None	Lapsed hedgerow coppice located within the hedgerow	Good	Fair	40+	B1	5.9	109	-	-
T122	Willow (Crack)	On	7	1	Yes	1500	10-10-4-6	0.5	0.5	-	LM	None	Collapsed and layering willow tree located off-site and to the north of the brook. Good habitat tree	Good	Fair	40+	B3	15	707	-	-
T123	Willow (Crack)	On	19	1	Yes	1600	10-10-8-10	1	0.5	-	LM	None	Collapsed and layering willow tree located off-site and to the north of the brook. Good habitat tree	Good	Fair	40+	B3	15	707	-	-
T124	Ash (Common)	On	18	1	Yes	1200	10-10-8-8	5	4	W	M	None	Mature ash of particularly good form and condition with a large stem diameter; ivy throughout mid crown	Good	Good	40+	A1	14.4	651	-	-

BS5837:2012 TREE SURVEY SCHEDULE

PROJECT NO: 4844

OAKLANDS SOLAR FARM

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett Arboricultural Consultants

Ref	Species	On/off	Top Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. low crown height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²	Veteran/ Ancient Tree or ANSW buffer radius (m)	TPO?
T125	Ash (Common)	On	12	1	Yes	900	7-10-8-7	5	0.5	W	M	None	Mature ash located within the hedgerow; ivy throughout crown; deadwood and stem cavities; re-generating from the stem base	Good	Good	40+	B3	10.8	366	-	-
T126	Ash (Common)	On	20	1	Yes	880	9-10-9-7	5	4	N	M	None	Mature ash located within the hedgerow; some cavities and hollowing associated with Inonotus Hispidus	Good	Good	40+	B3	10.6	350	-	-
T127	Ash (Common)	On	17	1	Yes	700	9-6-8-8	4	4	N	M	None	Mature ash located within the hedgerow. Upper crown has torn out leaving a large hollowing main stem at 6m	Good	Good	40+	B3	8.4	222	-	-
T128	Willow (Crack)	On	17	1	None	1600	9-10-9-10	4	4	W	LM	None	Mature willow located within the hedgerow. Upper crown is in decline with a large section of the eastern crown now being dead. Good habitat tree	Good	Good	40+	B3	15	707	-	-
T129	Ash (Common)	On	15	1	Yes	400	6-6-6-6	4	3	W	SM	None	Establishing ash located within the hedgerow	Good	Good	40+	B1	4.8	72	-	-
T130	Elm (English)	On	15	2	Yes	400	4-5-5-5	4	3	E	SM	None	SM elm in good condition and showing good resilience to DED	Good	Good	40+	B1	4.8	72	-	-
T131	Ash (Common)	On	8	1	Yes	680	3-3-4-4	5	5	-	M	None	Hollowed ash stem with regrowth; good habitat tree; upper crown torn out at 5m	Good	Fair	20+	B3	8.2	209	-	-
T132	Beech (Common)	On	10	1	Yes	520	5-4-5-3	3	0.5	-	SM	None	Establishing beech of good form and condition located within the hedgerow	Good	Good	40+	B1	6.2	122	-	-

BS5837:2012 TREE SURVEY SCHEDULE

OAKLANDS SOLAR FARM

PROJECT NO: 4844

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett Arboricultural Consultants

Ref	Species	On/off	Top Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. low crown height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²	Veteran/ Ancient Tree or ANSW buffer radius (m)	TPO?
T133	Chestnut (Horse)	On	10	1	Yes	550	5-5-5-3	3	0.5	-	SM	None	Establishing chestnut of good form and condition located within the hedgerow	Good	Good	40+	B1	6.6	137	-	-
T134	Hawthorn	On	6.5	1	Yes	300	4-3-3-2	1	0.5	-	SM	None	Establishing hawthorn of good form and condition located within the hedgerow	Good	Good	40+	B1	3.6	41	-	-
T135	Hawthorn	On	6.5	1	Yes	300	4-3-3-2	1	0.5	-	SM	None	Establishing hawthorn of good form and condition located within the hedgerow	Good	Good	40+	B1	3.6	41	-	-
T136	Hawthorn	On	6.5	1	Yes	300	4-3-3-2	1	0.5	-	SM	None	Establishing hawthorn of good form and condition located within the hedgerow	Good	Good	40+	B1	3.6	41	-	-
T137	Hawthorn	On	6.5	1	Yes	300	4-3-3-2	1	0.5	-	SM	None	Establishing hawthorn of good form and condition located within the hedgerow	Good	Good	40+	B1	3.6	41	-	-
T138	Oak (English)	On	9	1	Yes	440	5-5-4-4	2	1	E	SM	None	Establishing oak of good form and condition located within the hedgerow	Good	Good	40+	B1	5.3	88	-	-
T139	Ash (Common)	On	17	1	Yes	1080	7-8-5-7	5	0.5	-	M	None	Some decline in upper crown. Good habitat features such as large cavities in structural limbs and hollowing of the main stem; ivy throughout crown	Fair	Fair	40+	B3	13	528	-	-
T140	Oak (English)	On	6	1	Yes	160	1-1-1-1	2	2	-	Y	None	Establishing hedgerow oak with significant future growth potential	Good	Good	40+	B1	2	12	-	-
T141	Ash (Common)	On	22	1	Yes	1000	10-10-9-9	5	6	-	M	None	Mature ash of particularly good form and condition located within the hedgerow; ivy throughout mid crown	Good	Good	40+	A1	12	452	-	-

BS5837:2012 TREE SURVEY SCHEDULE

OAKLANDS SOLAR FARM

PROJECT NO: 4844

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett Arboricultural Consultants

Ref	Species	On/off	Top Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. low crown height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²	Veteran/ Ancient Tree or ANSW buffer radius (m)	TPO?
T142	Oak (English)	On	23	1	Yes	1280	11-10-13-12	6	3	W	M	None	Mature oak of excellent good form and condition; prominent tree that overhangs by up to 13m	Good	Good	40+	A1	15	707	-	-
T143	Maple (Field)	On	10	5	Yes	450	5-5-5-5	3	0.5	-	EM	None	Hedgerow coppice tree	Good	Good	40+	B1	5.4	92	-	-
T144	Oak (English)	On	11	1	Yes	580	7-7-6-6	4	3	E	EM	None	Establishing oak located on the northern bank of a ditch	Good	Good	40+	B1	7	152	-	-
T145	Oak (English)	On	7	1	Yes	280	4-5-4-5	4	1	W	SM	None	Y to SM oak establishing at /highway boundary	Good	Fair	40+	B1	3.3	35	-	-
T146	Oak (English)	On	9	2	Yes	340	5-5-4-5	4	1	W	SM	None	Y to SM oak establishing at /highway boundary	Good	Good	40+	B1	4.1	52	-	-
T147	Oak (English)	On	11	1	Yes	300	5-5-5-5	4	2	W	SM	None	SM oak establishing at / highway boundary	Good	Good	40+	B1	3.6	41	-	-
T148	Oak (English)	On	11	1	Yes	350	6-6-3-6	4	2	W	SM	None	SM oak establishing at / highway boundary	Good	Good	40+	B1	4.2	55	-	-
T149	Oak (English)	On	6	1	Yes	300	2-0-3-3	4	2	N	SM	None	Tree in poor condition having been topped at 3m	Good	Good	20+	C1	3.6	41	-	-
T150	Oak (English)	On	14	1	Yes	600	7-7-7-6	6	4	S	EM	None	English oak establishing within the hedgerow at /highway boundary; ivy on main stem	Good	Good	40+	B1	7.2	163	-	-
T151	Oak (English)	On	14	1	Yes	550	6-5-7-6	6	4	S	EM	None	English oak establishing within the hedgerow at /highway boundary; ivy on main stem	Good	Good	40+	B1	6.6	137	-	-
T152	Ash (Common)	On	10	1	Yes	650	4-5-4-4	5	4	N	M	None	Ash with a decaying/ hollowing main stem located within the hedgerow at /highway boundary; ivy on main stem	Good	Good	40+	B3	7.8	191	-	-

BS5837:2012 TREE SURVEY SCHEDULE

OAKLANDS SOLAR FARM

PROJECT NO: 4844

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett Arboricultural Consultants

Ref	Species	On/off	Top Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. low crown height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²	Veteran/ Ancient Tree or ANSW buffer radius (m)	TPO?
T153	Ash (Common)	On	14	3	Yes	360	5-5-5-5	5	0.5	-	SM	None	Located east of a ditch within a treeline that defines boundary	Good	Fair	40+	C1	4.3	59	-	-
T154	Oak (English)	On	12	1	Yes	580	6-6-6-6	5	2	E	SM	None	Located east of a ditch within a treeline that defines boundary	Good	Good	40+	B1	7	152	-	-
T155	Oak (English)	On	12	1	Yes	600	6-6-6-6	5	3	E	EM	None	Located east of a ditch within a treeline that defines boundary	Good	Good	40+	B1	7.2	163	-	-
T156	Oak (English)	On	12	1	Yes	300	6-5-6-5	5	2	-	SM	None	Located east of a ditch within a treeline that defines boundary	Good	Good	40+	B1	3.6	41	-	-
T157	Willow (Crack)	On	10	1	Yes	1300	5-5-6-4	5	3	-	LM	None	Located east of a ditch within a treeline that defines boundary. Large diameter hollowed stem; Pollarded crown	Good	Good	40+	B3	15	707	-	-
T158	Willow (Crack)	On	16	1	Yes	1200	7-6-6-6	5	3	-	LM	None	Located east of a ditch within a treeline that defines boundary. Pollarded crown	Good	Good	40+	B1	14.4	651	-	-
T159	Ash (Common)	On	17	1	Yes	550	9-9-9-8	5	4	-	EM	None	Located east of a ditch within a treeline that defines boundary.	Good	Good	40+	B1	6.6	137	-	-
T160	Ash (Common)	On	12	1	Yes	580	7-7-6-6	5	4	-	EM	None	Located east of a ditch within a treeline that defines boundary.	Good	Good	40+	B1	7	152	-	-
T161	Oak (English)	On	21	1	None	1180	12-10-10-10	6	3	-	M	None	Mature and prominent oak of excellent form and condition located within the hedgerow	Good	Good	40+	A1	14.2	630	-	-
T162	Oak (English)	On	20	1	None	1350	9-10-11-9	6	4	-	M	None	Mature and prominent oak with large stem diameter; branch stubs and signs of crown retrenchment; located within the hedgerow	Good	Good	40+	A3	15	707	-	-

BS5837:2012 TREE SURVEY SCHEDULE

OAKLANDS SOLAR FARM

PROJECT NO: 4844

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett Arboricultural Consultants

Ref	Species	On/off	Top Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. low crown height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²	Veteran/ Ancient Tree or ANSW buffer radius (m)	TPO?
T163	Oak (English)	On	21	1	None	1300	11-10-10-10	6	5	-	M	None	Mature and prominent oak of excellent form and condition located within the hedgerow	Good	Good	40+	A1	15	707	-	-
T164	Oak (English)	On	6	1	Yes	200	3-3-3-3	2	0.5	-	Y	None	Establishing oak of good form and condition	Good	Good	40+	B1	2.4	18	-	-
T165	Ash (Common)	On	6	1	Yes	650	2-4-2-4	0.5	0.5	-	M	None	Mature hedgerow ash; historically laid within the hedgerow; now with 5m regrowth	Good	Good	40+	B3	7.8	191	-	-
T166	Poplar (Lombardy)	On	15	1	Yes	380	2-2-2-2	0.5	0.5	-	SM	None	Establishing poplar located adjacent to an existing gap/access point in the hedgerow	Good	Good	40+	C1	4.5	65	-	-
T167	Ash (Common)	On	19.0	2	Yes	610.0	6.0-8.0-6.5-7.5	6.0	5.0	E	EM	None	Located east of the compacted earth track; set back from edge of track by 1.5m. Located on a raised embankment. Tree showing signs of decline (ash dieback)	Poor	Poor	<10	C2	7.3	168.0	-	Yes
T168	Willow (Goat)	On	15.0	15	Yes	580.0	6.0-6.0-5.5-5.5	1.0	0.5	-	EM	None	Lapsed coppice tree; compacted earth track to the east; gap in canopy to the south	Good	Fair	40+	C2	7.0	152.0	-	Yes
T169	Oak (English)	On	15.0	1	Yes	380.0	6.0-4.0-5.5-6.0	1.0	2.0	N	SM	None	Establishing oak of good form and condition; located within 2m of perimeter fence	Good	Good	40+	B1	4.5	65.0	-	Yes
T170	Ash (Common)	On	19.0	1	Yes	780.0	7.0-8.0-7.5-8.0	4.0	4.0	E	M	None	Mature ash; deadwood in crown and cavities in stems	Good	Fair	40+	B3	9.4	275.0	-	-

BS5837:2012 TREE SURVEY SCHEDULE

OAKLANDS SOLAR FARM

PROJECT NO: 4844

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett
Arboricultural Consultants

GROUPS OF TREES

Ref	Species	On/off site	Height range (m)	No. of trees	Est diam?	Max stem diam (mm)	Av. Crown radius (m)	Avg. low crown height (m)	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	TPO?
G1	Lime; Scots pine	On	12-18	5	Yes	1000.0	6.0	4.0	M	None	Linear group of trees forming part of Lime tree avenue. Located within garden area; epicormic growth to stems/lower canopy.	Good	Good	40+	A2	12.0	-
G2	Lime	On	16-18	2	Yes	850.0	6.0	4.0	M	None	Two tree group forming part of larger avenue group; epicormic growth to stem/lower canopy. Good collectively.	Good	Good	40+	A2	10.2	-
G3	Lime	On	18	3	Yes	850.0	6.0	2.0	M	None	Three tree group; epicormic growth to stem/ lower canopy; good collectively. Part of larger avenue group.	Good	Good	40+	A2	10.2	-
G4	Lime	On	12-17	11	None	800.0	5.0	2.0	M	None	Major part of avenue group; epicormic growth to all stems from 2m. Some obvious dieback to some trees. Better as a collective landscape feature. Prominent.	Fair	Good	20+	A2	9.6	-
G5	Horse chestnut	On	10-12	2	None	830	6.0	2.0	M	None	Two similar sized trees located within larger avenue; one tree with obvious dieback within canopy. Better as part of larger canopy.	Fair	Good	20+	B2	10.0	-
G6	Horse chestnut	On	15-16	5	None	920	7.0	3.0	M	None	Trees form part of avenue planting. Bark damage to most trees; some minor branch failures. Better when considered collectively.	Fair	Good	20+	B2	11.0	-
G7	Horse chestnut	On	16	2	None	960	8.0	2.0	M	None	Two tree group located within avenue. Good form; some minor limb failures within canopies. Better collectively.	Good	Good	20+	B2	11.5	-
G8	Horse chestnut	On	15-16	2	None	870	7.0	2.0	M	None	Two tree group; both trees with limb failures in past; good collectively.	Fair	Good	20+	B2	10.4	-
G9	Hawthorn	On	3-6	9	None	250	3.0	2.0	M	None	Former hedgerow. Better collectively.	Good	Good	20+	B2	3.0	-
G10	Oak; Beech; Pine; Cedar; Eucalyptus; Holly; Laburnum	On	6-16	20	Yes	800	6.0	2.0	M	None	Planted group of trees within garden area; good collectively.	Good	Good	40+	A2	9.6	-
G11	Cedar; Mulberry; Plum; Apple; Yew; Oak; Cypress; Cherry	On	2-10	50	Yes	350	3.0	2.0	M	None	Trees located within garden area; good collectively.	Good	Good	20+	B2	4.2	-
G12	Sycamore	On	6-13	5	None	380	4.0	4.0	EM	None	Small group of trees on edge of larger group/field edge. Cavities to stems.	Fair	Good	20+	B2	4.5	-
G13	Oak	On	15	3	None	620	6.0	4.0	M	None	Three tree group on edge of wooded area; good collectively but suppressed. Better considered collectively.	Good	Good	20+	B2	7.4	-

BS5837:2012 TREE SURVEY SCHEDULE

OAKLANDS SOLAR FARM

PROJECT NO: 4844

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett Arboricultural Consultants

Ref	Species	On/off site	Height range (m)	No. of trees	Est diam?	Max stem diam (mm)	Av. Crown radius (m)	Avg. low crown height (m)	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	TPO?
G14	Ash; Hawthorn; Willow; Birch; crab apple	On	2-9	30	None	450	3.0	5.0	EM	None	Linear tree group located adjacent to access track; scrubby nature. Better collectively.	Fair	Good	20+	C2	5.4	
G15	Horse chestnut	On	14-16	3	Yes	1000	6.0	5.0	M	None	Three tree group located on field boundary; shallow ditch to east of stem; highway to east of stems. Ivy obscuring stems. Good collectively.	Good	Good	20+	B2	12.0	Yes
G16	Horse chestnut	On	14	2	Yes	800	6.0	4.0	M	None	Two similar sized field edge trees; both trees in decline with obvious canopy dieback. Moderate deadwood within canopies.	Poor	Fair	10+	C2	9.6	Yes
G17	Horse chestnut	On	10-12	5	Yes	800	6.0	4.0	M	None	Linear group of similar sized trees; ivy obscuring stems. Limited access. Highway to east. Better collectively. Some dieback to some trees.	Fair	Good	20+	B2	9.6	Yes
G18	Horse chestnut	On	9-15	6	Yes	950	7.0	5.0	M	None	Field edge trees located adjacent to highway. Good collectively; similar sized trees. Limited access.	Good	Good	20+	B1	11.4	Yes
G19	Cypress; Field maple; Ash; Cherry laurel	Off	6-9	10	None	250	3.0	1.0	EM	None	Low value group located on boundary. No access due to undergrowth.	Good	Good	10+	C2	3.0	-
G20	Poplar	On	11	6	Yes	600	4.0	3.0	M	None	Linear group of poplars; evidence of past pollarding works. Better collectively. Good screen.	Good	Fair	10+	B2	7.2	-
G21	Poplar (Lombardy; Hybrid black)	On	25-29	6	None	1100	10.0	4.0	M	None	Small group of large trees; some historic failures; major limb failure to remaining trees. Prominent within landscape.	Good	Fair	10+	B2	13.2	-
G22	Ash; Elder	On	3-16	3	None	870	7.0	4.0	M	None	Two similar sized trees located within field interior; historic coppice to one tree; suppressed but cohesive canopies. Better collectively.	Good	Good	20+	B2	10.4	-
G23	Poplar; Hawthorn; Holly; Cypress; Elder	On	3-15	30	Yes	600	4.0	2.0	EM	None	Linear group adjacent to footpath. Better collectively. Poplars pollarded in past with regrowth.	Good	Good	20+	B2	7.2	-
G24	Alder; Willow; Ash	On	4-15	40	None	600	5.0	2.0	M	None	Group of similar sized trees circumnavigating pond area. Dominated by Alder.	Good	Fair	20+	B2	7.2	-
G25	Alder; Sycamore; Field maple; Willow; Ash; Hawthorn; Blackthorn	On	2-18	50	Yes	800	7.0	3.0	M	None	Linear group of trees straddling watercourse. ash in decline with inonotus infection/ash dieback. Good collectively. Some Willow subsiding.	Fair	Fair	20+	B2	9.6	-

BS5837:2012 TREE SURVEY SCHEDULE

OAKLANDS SOLAR FARM

PROJECT NO: 4844

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett Arboricultural Consultants

Ref	Species	On/off site	Height range (m)	No. of trees	Est diam?	Max stem diam (mm)	Av. Crown radius (m)	Avg. low crown height (m)	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	TPO?
G26	Alder; Ash; Hawthorn	On	3-17	30	Yes	500	4.0	5.0	M	None	Linear group straddling watercourse; better collectively. Limited access. Dominated by Alder.	Good	Good	20+	B2	6.0	-
G27	Blackthorn; Hazel; Hawthorn	On	3-6	20	None	100	3.0	1.0	EM	None	Scrubby area of vegetation around watercourse. Low value.	Fair	Good	10+	C2	1.3	-
G28	Alder; Oak; Elder; Hawthorn; Blackthorn	On	2-18	100	Yes	500	5.0	1.0	M	None	Group of trees straddling watercourse. Dominated by Alder species. Good collectively.	Good	Fair	20+	B2	6.0	-
G29	Blackthorn; Hawthorn; Alder	On	2-8	50	Yes	200	3.0	1.0	EM	None	Area of scrubby vegetation; some self-set Alder. Straddling watercourse.	Good	Good	10+	C2	2.4	-
G30	Alder; Ash; Hawthorn; Elder	On	2-18	200	Yes	600	6.0	2.0	M	None	Substantial linear group straddling watercourse. Most trees Alder; obscured by Ivy. Good collectively. Limited£ data on topo.	Good	Good	20+	B2	7.2	-
G31	Alder; Hawthorn	On	2-18	100	None	500	5.0	4.0	M	None	Group of similar sized trees situated around pond area. Most trees multi-stemmed - dominated by Alder.	Good	Good	20+	B2	6.0	-
G32	Ash; Birch; Oak; Hawthorn; Cherry laurel; Willow; Blackthorn	On	2-17	100	Yes	600	5.0	2.0	EM	None	Area of trees; mostly Hawthorn/Blackthorn with larger Ash; Willow; Birch and Oak. Better collectively . Some dead standing trees; some failed in to adjacent field.	Good	Fair	10+	C2	7.2	-
G33	Alder; Hawthorn; Elder	On	3-14	75	None	600	4.0	2.0	EM	None	Group;of mostly Alder species. Better collectively.	Good	Good	20+	B2	7.2	-
G34	Alder; Hawthorn; Ash; Blackthorn; Elder	On	2-18	100	Yes	600	4.0	1.0	EM	None	Group of trees situated close to watercourse. Good collectively. Mostly Ash/Alder species. Limited access to trees due to undergrowth.	Good	Good	20+	B2	7.2	-
G35	Common ash; horse chestnut; willow	On	4-12	15	Yes	480	5.0	1.0	SM	None	Group of trees located on an embankment that drops down to an agricultural pond	Good	Fair	40+	B2	5.8	-
G62	Willow; Hazel; Elder; Hawthorn	On	4-11	50	Yes	350	4.0	2.5	EM	None	Scrubby group on edge of wooded area; some trees in decline.	Fair	Fair	10+	C2	4.2	-
G36	Damson; blackthorn; elder	On	4-8	250	Yes	400	4.0	0.5	EM	None	Linear tree feature/outgrown hedgerow; some gaps along its length	Good	Fair	40+	B2	4.8	-
G37	Field maple; English elm; hawthorn	On	5-7	6	Yes	550	4.0	0.5	M	None	Outgrown hedgerow trees including some mature hedgerow coppice trees	Good	Fair	40+	B2	6.6	-
G38	Damson; blackthorn; elder	On	4-8	100	Yes	400	4.0	0.5	EM	None	Establishing blackthorn scrub located around some mature hawthorn; blackthorn and damson.	Good	Fair	40+	B2	4.8	-

BS5837:2012 TREE SURVEY SCHEDULE

OAKLANDS SOLAR FARM

PROJECT NO: 4844

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett Arboricultural Consultants

Ref	Species	On/off site	Height range (m)	No. of trees	Est diam?	Max stem diam (mm)	Av. Crown radius (m)	Avg. low crown height (m)	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	TPO?
G39	Common ash	On	14-16	3	Yes	550	7.0	6.0	EM	None	Lapsed hedgerow coppice trees forming a cohesive canopy and located within the hedgerow	Good	Fair	40+	B2	6.6	-
G40	Crack willow	On	10-12	4	Yes	500	7.0	5.0	EM	None	Low pollard/coppice trees forming a cohesive canopy and located within the hedgerow	Good	Fair	40+	B2	6.0	-
G41	Hawthorn; blackthorn	On	3-5	15	Yes	180	3.0	0.5	SM	None	Group of thorn trees surrounding an agricultural pond/area of scrub	Good	Fair	40+	C2	2.2	-
G42	Sycamore; hawthorn	On	5-15	14	Yes	300	5.0	2.0	SM	None	Predominantly establishing sycamore located on the banks of a brook	Good	Fair	40+	C2	3.6	-
G43	Common beech; common ash; poplar; cypress; sycamore	Off	14-17	20	Yes	400	5.0	2.0	SM	None	Mixed species tree group forming a small copse; providing some visual screening for	Good	Fair	40+	B2	4.8	-
G44	Corsican pine	Off	10-15	7	Yes	400	5.0	5.0	SM	None	Group of SM to EM pine located within an fenced off plot	Good	Fair	40+	B2	4.8	-
G45	Hawthorn	On	3-5	5	Yes	180	3.0	0.5	SM	None	Group of thorn trees and remnant of hawthorn hedgerow surrounding a small agricultural pond	Good	Fair	40+	C2	2.2	-
G46	Damson; blackthorn; elder; goat willow	On	4-8	250	Yes	350	4.0	0.5	SM	None	Linear tree feature/outgrown hedgerow; some gaps along its length	Good	Fair	40+	B2	4.2	-
G47	Common ash	On	17-22	8	Yes	850	7.0	5.0	M	None	Group of mature ash forming a largely cohesive canopy. Storm damaged trees provide good deadwood habitat features such as cavities and large diameter branch stubs	Good	Fair	40+	B3	10.2	-
G48	Common ash; English oak; hawthorn; elder	On	6-22	50	Yes	850	7.0	5.0	M	None	Group of mature ash forming a largely cohesive canopy. Storm damaged trees provide good deadwood habitat features such as cavities and large diameter branch stubs. Understorey of hawthorn and elder provide some low level screening	Good	Fair	40+	B3	10.2	-
G49	Common ash; English oak	On	5-8	4	Yes	185	3.0	1.0	Y	None	Establishing trees of limited maturity	Good	Fair	40+	C2	2.2	-
G50	Hawthorn; elder	On	4-6	16	Yes	250	4.0	1.0	SM	None	Thorn scrub establishing around a now drained agricultural pond/depression	Good	Fair	40+	C2	3.0	-
G51	Hawthorn; elder	On	4-6	15	Yes	350	4.0	1.0	M	None	2x very mature hawthorn and establishing elder scrub located on the banks of a depression; large badgers/foxes set within the bank	Good	Fair	40+	B3	4.2	-

BS5837:2012 TREE SURVEY SCHEDULE

OAKLANDS SOLAR FARM

PROJECT NO: 4844

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett Arboricultural Consultants

Ref	Species	On/off site	Height range (m)	No. of trees	Est diam?	Max stem diam (mm)	Av. Crown radius (m)	Avg. low crown height (m)	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	TPO?
G52	Common ash	On	15-16	2	Yes	350	5.0	4.0	EM	None	2x ash lapsed coppice trees located within the hedgerow	Good	Fair	40+	B2	4.2	-
G53	Hawthorn; elder; goat willow	On	4-6	18	Yes	250	4.0	1.0	SM	None	Establishing scrub on the banks of a drained agricultural pond; understorey trees for the mature poplar	Good	Fair	40+	C2	3.0	-
G54	Hawthorn; goat willow; common ash; elder; dog rose	On	4-10	25	Yes	250	4.0	1.0	SM	None	Establishing scrub/outgrown hedgerow on the banks of a ditch; dense rose establishing throughout. Provides good screening for from neighbouring land	Good	Fair	40+	B2	3.0	-
G55	Crack willow; goat willow; dog rose	On	4-10	50	Yes	250	4.0	1.0	SM	None	Establishing willow on the banks of a ditch/ brook; dense rose establishing throughout. Provides good screening for from neighbouring land; more mature trees plotted as individuals	Good	Fair	40+	B2	3.0	-
G56	Hawthorn; blackthorn; willow	On	5-12	20	Yes	300	4.0	0.2	EM	None	Dense scrub establishing on the banks of an agricultural pond	Good	Good	40+	B2	3.6	-
G57	Common ash; English oak	On	13-16	3	Yes	380	5.0	4.0	SM	None	Establishing trees at /highway boundary	Good	Fair	40+	B2	4.5	-
G58	Common ash; English oak; willow; blackthorn	On	5-14	25	Yes	350	5.0	4.0	SM	None	Establishing trees/scrub; located around an agricultural pond and electricity pylon	Good	Fair	40+	B2	4.2	-
G59	Crack willow; blackthorn; hawthorn	On	5-14	20	Yes	500	5.0	4.0	EM	None	Collapsed and layering willow stems and thorn trees located around an agricultural pond	Good	Fair	40+	B2	6.0	-
G60	English oak; common ash; field maple	On	6-14	6	Yes	450	6.0	1.0	SM	None	Establishing trees within an outgrown hedgerow	Good	Good	40+	B2	5.4	-
G61	Privet; Elder; Hawthorn; Willow	On	5-12	50	Yes	350	2.5	2.0	M	None	Linear group of trees along field edge. Dominated by Privet species. Some Willow standards contained within. Some declining trees within group.	Fair	Good	10+	C2	4.2	-
G62	Hazel; damson; blackthorn; sycamore	On	4-8	150	Yes	200	3.0	0.5	SM	None	Screening trees skirting the power station boundary; existing compacted earth track to the west (3-4m wide)	Good	Fair	40+	C2	2.4	Yes
G63	Sycamore ; common ash	On	12-18	25	Yes	275	5.0	2.0	SM	None	Multi stemmed sycamore and ash establishing beneath the overhead wires; likely to be cyclically cleared to maintain clearance	Fair	Fair	<10	C2	3.3	Yes
G64	Sycamore; English oak; silver birch	On	8-15	50	Yes	375	6.0	1.0	SM	None	Establishing belt of mixed broadleaf trees located west of the overhead wires	Good	Good	40+	B2	4.5	Yes

BS5837:2012 TREE SURVEY SCHEDULE

OAKLANDS SOLAR FARM

PROJECT NO: 4844

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett Arboricultural Consultants

Ref	Species	On/off site	Height range (m)	No. of trees	Est diam?	Max stem diam (mm)	Av. Crown radius (m)	Avg. low crown height (m)	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	TPO?
G65	Common ash; common alder; hawthorn	On	6-20	20	Yes	650	8.0	1.0	M	None	Cattle in field so trees inspected from the roadside gateway. Mature trees located on the banks of the stream.	Good	Good	40+	B2	7.8	-
G66	Common ash; common alder; hawthorn; willow	On	6-18	75	Yes	650	8.0	1.0	M	None	Mature ash and early mature alder. trees with understorey of thorn trees located on the banks of the watercourse; better collectively	Fair	Fair	40	B2	7.8	-

HEDGES

Ref	Species	On/off site	Av. Height (m)	Av. width (m)	Av. Stem diam (mm)	Avg. low crown height (m)	Life Stage	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)
H1	Hawthorn	On	1	1.5	100	0.2	EM	Managed hedgerow adjacent to highway; laid in past; gaps in places.	Fair	Good	10	C2	1.3
H2	Hawthorn	On	2	1.5	150	1.0	M	Managed boundary hedgerow; gaps in places.	Fair	Good	10	C2	1.8
H3	Elder; Hawthorn	On	2	1.5	125	0.4	M	Managed hedgerow; laid in past; gaps in places. Recently flailed.	Fair	Good	20	B2	1.5
H4	Hawthorn; Elder; Blackthorn	On	2	1.5	125	0.3	M	Managed hedgerow skirting wooded area. Recently flailed.	Good	Good	10	B2	1.5
H5	Blackthorn; Hawthorn; Elder	On	2	1.5	150	0.3	M	Managed hedgerow skirting wooded area; gaps in places; laid in past.	Good	Good	10	B2	1.8
H6	Hawthorn; Lime	On	1	1	80	0.1	EM	Managed hedgerow along boundary. Lime standard trees contained within to 3m. Low value.	Fair	Good	10	C2	1
H7	Hawthorn	On	1	1	75	0.2	EM	Managed hedgerow adjacent to highway. Recently flailed.	Fair	Good	10	C2	1
H8	Hawthorn; Blackthorn	On	2	3	100	0.4	M	Managed boundary hedgerow; laid in past. Continuous form.	Fair	Good	20	B2	1.3
H9	Hawthorn; Elder; Holly; Ash	On	7	5	250	2.0	M	Unmanaged boundary hedgerow. Mostly Hawthorn.	Good	Good	None	B2	3
H10	Hawthorn; Elder; Blackthorn	On	2	1.5	150	0.3	M	Managed boundary hedgerow; recently flailed to current dimensions. Mostly continuous.	Fair	Good	20	B3	1.8

BS5837:2012 TREE SURVEY SCHEDULE

OAKLANDS SOLAR FARM

PROJECT NO: 4844

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett
Arboricultural Consultants

Ref	Species	On/off site	Av. Height (m)	Av. width (m)	Av. Stem diam (mm)	Avg. low crown height (m)	Life Stage	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)
H11	Hawthorn; Elder	On	1	1.5	150	0.3	M	Managed boundary hedgerow. Gaps in places.	Fair	Good	10	C2	1.8
H12	Blackthorn; Hawthorn	On	2	3	125	0.4	M	Managed field edge tree; laid in past. Continuous form.	Fair	Good	20	B2	1.5
H13	Hawthorn; Blackthorn; Elder	On	1.5	2.5	150	0.4	M	Managed boundary hedgerow; continuous form.	Fair	Good	10	B2	1.8
H14	Hawthorn; Blackthorn	On	2	1.5	150	0.5	M	Managed hedgerow; ditch to east of stems; continuous form.	Fair	Good	10	B2	1.8
H15	Hawthorn	On	2	1.5	150	0.5	M	Managed field edge hedgerow; laid in past. Ditch directly to east of stems.	Fair	Good	10	B2	1.8
H16	Hawthorn	On	1.5	1.5	100	0.4	M	None	Fair	Good	10	C2	1.3
H17	Damson; Hawthorn	On	5	4	150	0.3	M	Unmanaged hedgerow. Scrubby form.	Fair	Fair	20	B2	1.8
H18	Hawthorn; Blackthorn	On	5	4	200	1.0	M	Unmanaged boundary hedgerow. Straddling ditch.	Good	Good	20	B2	2.4
H19	Ash; Hawthorn	On	4	3	200	1.0	EM	Boundary hedgerow; most trees in decline; ivy clad trees	Poor	Fair	10	C2	2.4
H20	Blackthorn	On	2	1.5	100	1.0	M	Managed hedgerow. Recently flailed.	Fair	Good	10	B2	1.3
H21	Hawthorn; Blackthorn; Elder	Off	5	4	175	2.0	M	Unmanaged hedgerow located on field boundary. Gaps in places.	Fair	Good	None	B2	2.1
H22	Hawthorn	Off	6	4	300	1.0	M	Unmanaged hedgerow; gaps in places. Better collectively.	Good	Good	20	B2	3.6
H23	Blackthorn; Hawthorn	On	2	2.5	100	0.3	M	Managed hedgerow; ditch to east of stems. Gaps in places.	Good	Good	10	B2	1.3
H24	Hawthorn	On	2	2	200	0.3	M	Managed section of hedgerow; gaps in places.	Good	Good	10	C2	2.4
H25	Hawthorn	Off	6	5	300	0.3	M	Unmanaged hedgerow. Sections have been flailed.	Good	Good	None	B2	3.6
H26	Blackthorn; Hawthorn	On	2	2	80	0.5	M	Managed hedgerow; recently flailed. Adjacent to drainage ditch.	Fair	Good	10	B2	1
H27	Blackthorn; Hawthorn; Elder	Off	2	2	150	0.3	M	Boundary hedgerow; flailed in recent past; laid in past.	Fair	Good	10	B3	1.8

BS5837:2012 TREE SURVEY SCHEDULE

OAKLANDS SOLAR FARM

PROJECT NO: 4844

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett Arboricultural Consultants

Ref	Species	On/off site	Av. Height (m)	Av. width (m)	Av. Stem diam (mm)	Avg. low crown height (m)	Life Stage	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)
H28	Hawthorn; Elder; Ash	Off	2	2	100	0.4	M	Managed boundary hedgerow adjacent to highway; some trees grown up to 7m. Continuous form.	Fair	Good	10	B2	1.3
H29	Hawthorn; blackthorn; elder	On	1.75	2	140	0.2	M	Dense and well maintained hedgerow	Good	Good	40	B2	1.7
H30	Hawthorn; blackthorn	On	2	2.5	140	0.2	M	Dense and well maintained hedgerow	Good	Good	40	B2	1.7
H31	Hawthorn; blackthorn; elder holly	On	2	3	140	0.2	M	Dense and well maintained hedgerow	Good	Good	40	B2	1.7
H32	Hawthorn; blackthorn	On	2	2.5	100	0.2	SM	Dense and well maintained hedgerow	Good	Good	40	B2	1.3
H33	Hawthorn; blackthorn	On	2	2.5	80	0.2	SM	Dense and well maintained hedgerow	Good	Good	40	B2	1
H34	Hawthorn; elder	On	2.5	3	100	0.2	M	Dense and well maintained hedgerow	Good	Good	40	B2	1.3
H35	Blackthorn; damson; hawthorn	On	5	5	150	0.4	M	Outgrown hedgerow; unmaintaned	Good	Fair	40	B2	1.8
H36	Hawthorn; damson; blackthorn	On	4.5	4.5	150	0.2	M	Dense hedgerow; unmaintaned and now turning to scrub	Good	Good	40	B2	1.8
H37	Hawthorn; blackthorn	On	4.5	3.5	150	0.2	M	Dense hedgerow; unmaintaned across the top	Good	Good	40	B2	1.8
H38	Hawthorn; blackthorn	On	2.5	3	100	0.2	EM	Dense and maintained hedgerow; gaps along its length	Good	Good	40	C2	1.3
H39	Hawthorn; blackthorn	On	3	3.5	150	0.2	M	Dense and well maintained short section of hedgerow	Good	Good	40	B2	1.8
H40	Hawthorn; blackthorn; elder	On	4.5	5	150	0.5	EM	Unmaintaned hedgerow that wraps around a pond to the south.	Fair	Fair	40	C2	1.8
H41	Hawthorn; elder; damson	On	6	6	200	0.5	M	Unmaintaned but dense hedgerow; now beginning to form as dense scrub in its northern section; gaps along the thinner southern section	Good	Fair	40	B2	2.4
H42	Hawthorn; blackthorn	On	2	2	80	0.2	EM	Dense and maintained hedgerow; gaps along its length	Good	Good	40	C2	1
H43	Hawthorn; blackthorn	On	2.5	3.5	100	0.2	SM	Dense and well maintained hedgerow	Good	Good	40	B2	1.3
H44	Hawthorn; blackthorn	On	2	2.5	100	0.2	SM	Dense and well maintained hedgerow; gaps along its length	Good	Good	40	B2	1.3

BS5837:2012 TREE SURVEY SCHEDULE

OAKLANDS SOLAR FARM

PROJECT NO: 4844

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett
Arboricultural Consultants

Ref	Species	On/off site	Av. Height (m)	Av. width (m)	Av. Stem diam (mm)	Avg. low crown height (m)	Life Stage	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)
H45	Hawthorn; blackthorn	On	2.5	3	100	0.2	EM	Dense and well maintained hedgerow	Good	Good	40	**B2**	1.3
H46	Hawthorn; blackthorn	On	2.5	3	100	0.2	EM	Dense and well maintained hedgerow	Good	Good	40	**B2**	1.3
H47	Hawthorn; blackthorn	On	2.5	3.5	100	0.2	M	Dense and well maintained hedgerow	Good	Good	40	**B2**	1.3
H48	Hawthorn; blackthorn	On	2.5	3.5	120	0.2	M	Dense and well maintained hedgerow	Good	Good	40	**B2**	1.5
H49	Hawthorn; hazel	On	5	4	190	0.3	M	Mature hawthorn hedgerow; outgrown and located beyond the wire fence. Gaps of up to 10m along its length	Good	Fair	40	**B2**	2.3
H50	Hawthorn; blackthorn	On	2	2	100	0.2	EM	Dense and well maintained hedgerow	Good	Good	40	**B2**	1.3
H51	Hawthorn; elder; blackthorn	On	2	2	100	0.2	EM	Dense and well maintained hedgerow	Good	Good	40	**B2**	1.3
H52	Hawthorn	On	5	5	200	0.5	M	Outgrown hedgerow trees; gaps along its length	Good	Fair	40	**B2**	2.4
H53	Hawthorn; blackthorn; elder	On	2	2	100	0.2	EM	Dense and well maintained hedgerow	Good	Good	40	**B2**	1.3
H54	Hawthorn; blackthorn; elder	On	6	5	200	0.2	M	Side-flailed on site side only. Dense hedgerow dominated by mature hawthorn; now forming dense scrub	Good	Good	40	**B2**	2.4
H55	Blackthorn; common ash; hawthorn	On	6.5	6	100	0.1	Y	Establishing young ash trees located within a strip of establishing thorn trees/scrub	Fair	Fair	40	**C2**	1.3
H56	Hawthorn; elder	On	2.5	2.5	150	0.3	M	Dense and well maintained hedgerow; approx 20m gap on the corner adjacent to the highway	Good	Good	40	**B2**	1.8
H57	Hawthorn; blackthorn; elder	On	2.5	2.5	100	0.2	M	Dense and well maintained hedgerow	Good	Good	40	**B2**	1.3
H58	Hawthorn; blackthorn; elder	On	2.5	3	160	0.2	M	Dense and well maintained hedgerow	Good	Good	40	**B2**	2
H59	Hawthorn; blackthorn	On	3	2.5	80	0.2	M	Dense and well maintained hedgerow	Good	Good	40	**B2**	1
H60	Hawthorn; blackthorn	On	3	3	150	0.2	M	Dense and well maintained hedgerow	Good	Good	40	**B2**	1.8
H61	Hawthorn; blackthorn	On	2.5	2.5	150	0.2	M	Dense and well maintained hedgerow	Good	Good	40	**B2**	1.8
H62	Hawthorn; blackthorn	On	1.5	1.5	80	0.2	EM	Well maintained hedgerow; slightly lower and less dense than others at	Good	Good	40	**B2**	1

BS5837:2012 TREE SURVEY SCHEDULE

OAKLANDS SOLAR FARM

PROJECT NO: 4844

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett Arboricultural Consultants

Ref	Species	On/off site	Av. Height (m)	Av. width (m)	Av. Stem diam (mm)	Avg. low crown height (m)	Life Stage	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)
H63	Hawthorn; blackthorn	On	4.5	4.5	100	0.2	EM	Dense and unmaintaned hedgerow parallel to a narrow access track	Good	Good	40	B2	1.3
H64	Hawthorn; blackthorn	On	4.5	4.5	100	0.2	EM	Dense and unmaintaned hedgerow parallel to a footpath	Good	Good	40	B2	1.3
H65	English elm; bramble	On	3	2	70	0.2	Y	Short section of elm hedgerow. Trees are succumbing to DED	Good	Good	<10	C2	0.8
H66	Hawthorn; blackthorn	On	3	2.5	80	0.2	M	Dense and well maintained hedgerow; mature laid hawthorn within adjacent to the NW gateway	Good	Good	40	B2	1
H67	Hawthorn; holly; blackthorn; elder; gorse	On	5	4	150	0.2	EM	Unmaintaned hedgerow; now forming an understorey to the establishing trees within	Good	Good	40	B2	1.8
H68	Hawthorn; blackthorn	On	2.5	2	100	0.2	M	Dense and well maintained hedgerow	Good	Good	40	B2	1.3
H69	Hawthorn; blackthorn	On	2.5	2.5	100	0.2	M	Dense and well maintained hedgerow	Good	Good	40	B2	1.3
H70	Hawthorn; blackthorn; gorse; holly	On	3	2.5	100	0.2	M	Dense and well maintained hedgerow	Good	Good	40	B2	1.3
H71	Hawthorn; blackthorn	On	2.5	2.5	100	0.2	M	Dense and well maintained hedgerow	Good	Good	40	B2	1.3
H72	Hawthorn; blackthorn; elder	On	2.5	2.5	100	0.2	M	Dense and well maintained hedgerow; some gaps of up to 10m in the northern section	Good	Good	40	B2	1.3
H73	Hawthorn	On	2	2	100	0.2	EM	Dense and well maintained hedgerow; some gaps that have been planted with infill planting. Majority of infill planting has not taken and is dead	Good	Good	40	B2	1.3
H74	Hawthorn; blackthorn; field maple	On	2.5	2.5	100	0.2	M	Dense and well maintained hedgerow	Good	Good	40	B2	1.3
H75	Hawthorn; blackthorn; elder	On	2.5	3	120	0.2	M	Dense and well maintained hedgerow	Good	Good	40	B2	1.5
H76	Hawthorn; blackthorn; hazel	On	2.5	2	120	0.2	M	Dense and well maintained hedgerow; some gaps and dead stems at its western end	Good	Good	40	B2	1.5
H77	Hawthorn; blackthorn	On	5	3.5	150	0.2	M	Mostly dense hedgerow but with some gaps and dead stems along its length; side flailed only	Good	Good	40	B2	1.8

BS5837:2012 TREE SURVEY SCHEDULE

OAKLANDS SOLAR FARM

PROJECT NO: 4844

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett
Arboricultural Consultants

Ref	Species	On/off site	Av. Height (m)	Av. width (m)	Av. Stem diam (mm)	Avg. low crown height (m)	Life Stage	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)
H78	Hawthorn; blackthorn	On	5.5	4	200	0.5	M	Short section of outgrown hedgerow; some mature hawthorn within	Good	Good	40	C2	2.4
H79	Hawthorn	On	1.75	1.8	80	0.2	EM	Lower level hedgerow with some gaps along its length	Good	Fair	40	B2	1
H80	Hawthorn; blackthorn; elder	On	2.75	2.5	100	0.2	M	Dense and well maintained hedgerow	Good	Good	40	B2	1.3
H81	Hawthorn; blackthorn	On	5	3.5	150	0.2	SM	Scrub/understorey trees forming an informal hedgerow	Good	Good	40	B2	1.8
H82	Hawthorn; blackthorn; field maple	On	6	5	150	0.2	SM	Densely planted trees forming an informal hedgerow at boundary	Good	Good	40	B2	1.8
H83	Hawthorn; holly; blackthorn; elder	On	5	4	150	0.2	EM	Outgrown hedgerow (side flailed only) some mature thorn trees within	Good	Good	40	B2	1.8
H84	Hawthorn; blackthorn	On	1.5	1.5	100	0.2	M	Short section of low level hedgerow	Good	Good	40	C2	1.3
H85	Blackthorn	On	2.5	2.5	40	0.2	SM	Short section of flailed blackthorn	Good	Good	40	C2	0.6
H86	Hawthorn; holly; blackthorn; elder	On	2.5	2.5	150	0.2	M	Dense and well maintained hedgerow; some gaps along its length due to shading from the mature oak	Good	Good	40	B2	1.8
H87	Hawthorn; elder	On	5.0	5	150	0.5	EM	Outgrown hedgerow trees at the field boundary	Good	Fair	40	B2	1.8
H88	Hawthorn; holly; blackthorn; elder	On	5.0	4	150	0.2	EM	Outgrown hedgerow (side flailed only) some mature thorn trees within	Good	Good	40	B2	1.8
H89	Hawthorn; Elder; Ash	Off	3.0	3	100	0.4	M	Managed boundary hedgerow adjacent to highway; some trees grown up to 7m. Continuous form.	Fair	Good	20	B2	1.3

BS5837:2012 TREE SURVEY SCHEDULE

OAKLANDS SOLAR FARM

PROJECT NO: 4844

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Barton Hyett
Arboricultural Consultants

WOODLAND

Ref	Species	On/off site	Height range (m)	No. of trees	Est diam?	Max stem diam (mm)	Av. Crown radius (m)	Avg. low crown height (m)	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	ASNW or ARW buffer (m)	TPO?
W1	Birch; Sycamore; Birch; Oak; Rowan; Willow; Ash; Elder	Off	2-16	500	Yes	800.0	6.0	2.0	M	ASNW	Large woodland area; mostly Birch species but some larger Oak. Surveyed along site edge only. Good collectively and prominent within local/wider landscape.	Good	Good	40	A2	9.6	15	-
W2	Oak; Ash; Birch; Sycamore; Poplar; Elder; Blackthorn; Hawthorn; Hazel	On	5-19	500	Yes	800.0	6.0	3.0	M	None	Linear wooded area; good collective form; prominent.	Good	Good	40	A2	9.6	-	-
W3	Cherry; Oak; Blackthorn; Hawthorn; Field maple; Elder; Hazel	Off	2-14	500	Yes	500.0	3.0	2.0	EM	None	Mostly plantation woodland; no access. Good collectively but trees reasonably small in size; flailed along field edge.	Good	Good	40	B2	6.0	-	-
W4	Common ash; English oak; hawthorn; blackthorn	On	6-22	200	Yes	600.0	6.0	2.0	EM	None	Triangular copse of woodland; dominated by ash with a dense understorey of hawthorn; rose and bramble. Existing compacted earth and stone access track to the north. Ditch across northern edge	Good	Fair	40	B2	7.2	-	-
W5	Common ash; English oak; hawthorn; blackthorn; willow	On	6-22	200	Yes	600.0	6.0	2.0	EM	None	Off-site copse of woodland; dominated by ash with an understorey of hawthorn and elder; overhanging by up to 6-7m	Good	Fair	40	B2	7.2	-	-
W6	Common ash; silver birch; alder; hazel	On	10-14	5000	Yes	250.0	4.0	1.0	SM	None	Establishing broadleaf plantation set back from boundary; significant future growth potential	Good	Good	40	B2	3.0	-	-
W7	Common ash; English oak; hawthorn; elder	Off	5-20	1000	Yes	600.0	6.0	2.0	EM	None	Establishing woodland; more mature trees at the southern woodland edge. Overhanging by up to 7m.located north of boundary	Good	Good	40	B2	7.2	15	-
W8	Sycamore, common as, common beech, pine, English oak	On	10-20	1000	Yes	800.0	7.0	2	M	None	Established mixed species woodland located to the north of Walton Road. Good screening for the power station that is located to the north	Good	Good	40	A2	9.6	-	Yes

BS5837:2012 TREE SURVEY SCHEDULE

PROJECT NO: 4844

OAKLANDS SOLAR FARM

SURVEYOR: IAN HOWELL/ANDREW CUNNINGHAM

CLIENT: BAYWA

SURVEY DATE: 8,9,10/2/2022

Ref	Species	On/off site	Height range (m)	No. of trees	Est diam?	Max stem diam (mm)	Av. Crown radius (m)	Avg. low crown height (m)	Life Stage	Special importance	General Observations	Health & vitality	Structural condition	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	ASNW or ARW buffer (m)	TPO?
W9	Scots pine; English oak; Lawson cypress; sycamore; silver birch; common beech	On	12-20	1500	Yes	575.0	5.0	4.0	EM	None	SM to EM woodland inbetween the Power station and overhead wires. Area to the east and west of the overhead wires has been cleared.	Good	Good	40	**B2**	6.9	-	Yes
W10	English oak; sycamore; silver birch; common ash; hawthorn; hazel	On	5-20	1000	Yes	550.0	6.0	1.0	EM	None	Establishing woodland located around a pond. Compacted earth track to the east parallel to G62. Tree stems set back from the edge of the track by 2-3m. Indicative cable route is shown to be located along the compacted earth track	Good	Fair	40	**B2**	6.6	-	Yes

IMAGE 1: T59 a willow pillars categorised as 'Ancient' due its large stem diameter.

IMAGE 2: Looking south at ancient English oak trees T56 & T57.

IMAGE 3: G6 & G8 forming a prominent avenue of Horse chestnut trees.

IMAGE 4: G2 & G4 forming a prominent avenue of Common lime trees.

IMAGE 5: Looking north at Veteran English oak tree T86.

IMAGE 6: Typical hedgerow and existing farm track with the southern parcel of farmland.

- The tree survey was carried out with reference to the methodology set out in BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.
- Trees were surveyed individually or as groups where it was considered that they had grown together to form cohesive arboricultural features either aerodynamically (trees that provide companion shelter), visually (e.g. avenues or screens) or culturally (including for biodiversity). However, where it was considered that there was an arboricultural need to differentiate between attributes trees within groups and / or woodlands were also surveyed as individuals.
- The full tree survey findings are recorded in the following tree survey schedule.
- Within the tree survey schedule, each surveyed TREE (T), GROUP (G), HEDGEROW (H), WOODLAND (W) or SHRUB MASS on or adjacent to is given a reference number which refers to its position on the tree survey and constraints plan.
- TREE SPECIES are listed by common name.

The **DIMENSIONS** taken are:

- STEM-No. Indicates the number of main stems (i.e. whether the trunk divides at or below 1.5m; (Used in the calculation of RPA.) "m-s" = Multi-stemmed.
- STEM DIAMETER (measured in millimetres), obtained from the girth measured at approx. 1.5m. For trees with 2 to 5 sub-stems a notional figure is derived from the sum of their cross-sectional areas. For multi-stemmed trees, the notional diameter may be estimated on the basis of the average stem size x the number of stems. (A notional diameter may be estimated where measurement is not possible.)
- HEIGHT (measured in metres), recorded to the nearest half metre for dimensions up to 10m and to the nearest whole metre for dimensions over 10m.
- The CROWN SPREAD, taken at the four cardinal points to derive an accurate representation of the tree crown, recorded up to the nearest half metre for dimensions up to 10m and to up the nearest whole metre for dimensions over 10m.
- CROWN CLEARANCES are expressed both as existing height above ground level of first significant branch along with its direction of growth (e.g. 2.5m-N), and also in terms of the overall crown e.g. the average height of the crown above ground level. Measurements are recorded to the nearest half metre for dimensions up to 10m and to the nearest whole metre for dimensions over 10m.
- ESTIMATES. Where any measurement has had to be estimated, due to inaccessibility for example, this is indicated by a "#" suffix to the measurement as shown in the tree survey schedule.

LIFE STAGE is defined as follows:

Y Young: Normally stake dependent, establishing trees. Should be growing fast, usually primarily increasing in height more than spread but as yet making limited impact upon the landscape.

SM Semi-mature: Established young trees, normally of good vigour and still increasing in height but beginning to spread laterally. Beginning to make an impact upon the local landscape and environment. Semi-Mature (still capable of being transplanted without preparation, up to 30cm girth and not yet sexually mature).

EM Early-mature: Not yet having reached 75% of expected mature size. Established young trees, normally of good vigour and still increasing in height but beginning to spread laterally. Beginning to make an impact upon the local landscape and environment.

M Mature: Well-established trees, still growing with some vigour but tending to fill out and increase spread. Bark may be beginning to crack and fissure. In the middle half of their safe, useful life expectancies.

LM Late-Mature: In full maturity but possibly beyond mature and in a state of natural decline). Still retaining some vigour but any growth is slowing.

A Ancient: A tree that has passed beyond maturity and is old/aged compared with other trees of the same species. Typically having a very wide trunk and a small canopy.

PHYSIOLOGICAL CONDITION (HEALTH & VITALITY):

Essentially a snapshot of the general health of the tree based upon its general appearance, it's apparent vigour and the presence or absence of symptoms associated with poor health, physiological stress etc. (Fungal infections may be recorded here but decay giving rise to structural weakness would be recorded under 'Structural Condition' – see next parameter):

Good: No significant health issues.
Fair: Indications of slight stress or minor disease (e.g. the presence of minor dieback/deadwood or of epicormic shoot growth).
Poor: Significant stress or disease noted; larger areas of dieback than above.
Dead: (or Moribund).

STRUCTURAL CONDITION:

Defects affecting the structural stability of the tree including decay, significant dead wood, root-plate instability or significant damage to structural roots, weak forks (e.g. those where bark is included between the members) etc. Classified as:

Good: No obvious structural defects: basically sound.
Fair: Minor, potential or incipient defects.
Poor: Significant defect(s) likely to lead to actual failure in the medium to long-term.
Dead: (or Moribund).

ESTIMATED REMAINING CONTRIBUTION:

An estimate of the length of time in years that a tree might be expected to continue to make a useful contribution to the locality at an acceptable level of risk (based on an assumption of continued routine maintenance):

- Less than 10 years
- 10+ years
- 20+ years
- 40+ years

Barton Hyett
Arboricultural Consultants

SPECIAL IMPORTANCE:

Trees that are particularly notable as high value trees such as ancient trees/woodland or veteran trees. Such trees may be regarded as the principal arboricultural features of a site and pose a significant constraint to potential development.

An *ancient* tree is one that has passed beyond maturity and is very old compared with other trees of the same species. Very few trees reach the ancient life-stage.

Veteran trees are often very old but not necessarily so; they may be regarded as 'survivors' that have developed some of the characteristic features of an ancient tree but have not necessarily lived as long. All ancient trees are veterans but not all veteran trees are ancient.

An ancient woodland is an area that has been wooded continuously since at least 1600 AD. It includes ancient semi-natural woodland (ASNW), plantations on ancient woodland sites (PAWS) and ancient replanted woodland (ARW)

QUALITY CATEGORY:

Trees are classed as category U, A, B or C, based on criteria given in BS5837:2012; summary definitions as follows (see BS5837 for further details). Categories A, B and C are further characterised by the use of sub-categories, which attempt to identify what aspect of the tree is the main source of its perceived value, These are:

(1) arboricultural qualities
(2) landscape qualities, and
(3) cultural, historic or ecological/conservation qualities.

Examples of these qualities for each of the three categories are given below, although these are indicative only.

Note: This is NOT a health and safety classification; the classification does not take into account any requirement for remedial tree care or ongoing maintenance apart from that which may affect the trees' general suitability for retention.

CATEGORY A: HIGH QUALITY:

Trees or groups whose retention should be given a particularly high priority within the design process. Normally with an expected useful life expectancy of at least 40 years.

A1: Notably fine specimens; rare or unusual specimens; essential component trees within groups, semi-formal or formal plantings (e.g. dominant trees within an avenue etc.).
A2: Trees, groups or woodlands of particular visual importance as landscape features.
A3: Trees, groups or woodlands of particular significance by virtue of their conservation, historical, commemorative or other value (e.g. veteran trees or wood pasture.)

CATEGORY B: MODERATE QUALITY:

Trees or groups of some importance with a likely useful life expectancy in excess of 20 years. Their retention would be desirable; selective removal of certain individuals may be acceptable but only after full consideration of all alternative courses of action.

B1: Fair quality but not exceptional; good specimens showing some impairment (e.g. remediable defects, minor storm damage or poor past management.)
B2: Acceptable trees situated such as to have little visual impact within the wider locality. Also numbers of trees, perhaps in groups or woodlands, whose value as landscape features is greater collectively than would warrant as individuals (such that the selective removal of an individual would not impact greatly upon the trees' overall, collective value).
B3: Trees, groups or woodlands with clearly identifiable conservation or other cultural benefits.

CATEGORY C: LOW QUALITY:

Trees or groups of rather low quality, although potentially capable of retention for at least approx. 10 years. Also small trees with stems below 15cm diameter.

Potentially retainable, but not of sufficient value to be regarded as a significant planning constraint.

C1: Unremarkable trees of very limited merit or of significantly impaired condition.
C2: Trees offering only low or short-term landscape benefits; also secondary specimens within groups or woodlands whose loss would not significantly diminish their landscape value.
C3: Trees with extremely limited conservation or other cultural benefit.

CATEGORY U:

Trees likely to prove to be unsuitable for retention for longer than 10 years should any significant increase in site usage arise as a result of development.

E.g. dead or moribund trees; those at risk of collapse or in terminal decline; trees that will be left unstable by other essential works such as the removal of nearby category U trees; trees infected by pathogens that could materially affect other trees; low quality trees that are suppressing better specimens.

(Category U trees may have conservation values that it might be desirable to preserve. This category may also include trees that should be removed irrespective of any development proposals.)

ROOT PROTECTION AREA (RPA):

These are normally represented as a circle centred on the base of each tree stem with a radius of 12 times stem diameter, measured at 1.5m above ground level. The shape of the RPA may be altered where site conditions dictate that there are sound reasons to do so.

VETERAN OR ANCIENT TREE BUFFER (VTB/ATB)

In line with the Standing Advice produced by the Forestry Commission and Natural England this is a buffer zone (in metres) around an ancient or veteran tree that should be at least 15 times larger than the diameter of the tree. The buffer zone should be 5m from the edge of the tree's canopy if that area is larger than 15 times the tree's stem diameter.

ANCIENT WOODLAND BUFFER (FOR ASNW, PAWS OR ARW)

In line with the Standing Advice produced by the Forestry Commission and Natural England this is a buffer zone of at least 15 metres to avoid root damage. Where assessment shows other impacts are likely to extend beyond this distance, a larger buffer zone may be required.

THE IMPORTANCE OF TREES

Wider benefits:

There is a growing body of evidence that trees bring a wide range of benefits to the places people live.

Some *Economic* benefits of trees include:

- Trees can increase property values
- As trees grow larger, the lift they give to property values grows proportionately
- They can improve the environmental performance of buildings by reducing heating and cooling costs, thereby cutting bills
- Mature landscapes with trees can be worth more as development sites
- Trees create a positive perception of a place for potential property buyers
- Urban trees improve the health of local populations, reducing healthcare costs

Some *Social* benefits of trees include:

- Trees help create a sense of place and local identity
- They benefit communities by increasing pride in the local area
- They can create focal points and landmarks
- They have a positive impact on people's physical and mental health
- They can have a positive impact on crime reduction

Some *Environmental* benefits of trees include:

- Urban trees reduce the 'urban heat island effect' of localised temperature extremes
- They provide shade, making streets and buildings cooler in summer
- They help remove dust and particulates from the air
- They help to reduce traffic noise by absorbing and deflecting sound
- They help to reduce wind speeds
- By providing food and shelter for wildlife they help increase biodiversity
- They can reduce the effects of flash flooding by slowing the rate at which rainfall reaches the ground
- They can help remediate contaminated soil

On new development sites:

Trees bring many benefits to new development. Where retained successfully they can form important and sustainable elements of green infrastructure, contribute to urban cooling and reduce energy demands in buildings. Their importance is acknowledged in relation to adaptation to the effects of climate change. Other benefits brought by trees include:

- increasing property values;
- visual amenity
- softening, complementing and adding maturity to built form
- displaying seasonal change
- increasing wildlife opportunities in built-up areas
- contributing to screening and shade
- reducing wind speed and turbulence

NATIONAL PLANNING POLICY

The National Planning Policy Framework 2023 (NPPF paragraph 186c) states that, when determining planning applications, local planning authorities should apply the following principle:

c) 'development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists.'

In this respect the following definitions apply:

'Ancient woodland: An area that has been wooded continuously since at least 1600 AD. It includes ancient semi-natural woodland and plantations on ancient woodland sites (PAWS)', and

'Ancient or veteran tree: A tree which, because of its age, size and condition, is of exceptional biodiversity, cultural or heritage value. All ancient trees are veteran trees. Not all veteran trees are old enough to be ancient, but are old relative to other trees of the same species. Very few trees of any species reach the ancient life-stage.'

Note: Further information from the National Planning Policy Guidance Suite and Standing Advice is provided in the design guidance section.

STATUTORY CONTROLS

Statutory tree protection

Works to trees which are covered by Tree Preservation Orders (TPOs) or are within a Conservation Area (CA) require permission or consent from the Local Planning Authority. Where information is available on any Statutory designations such as this they are identified within the summary table in Section 1 and on the Tree Survey and Constraints Plan at Section 2.

Notwithstanding specific exceptions and in general terms, a TPO prevents the cutting down, uprooting, topping, lopping, wilful damage or wilful destruction of protected trees or woodlands without the prior written consent of the LPA.

Penalties for contravention of a TPO tend to reflect the extent of damage caused but can, in the event of a tree being destroyed, result in a fine of up to £20,000 if convicted in a Magistrates' Court, or an unlimited fine is the matter is determined by the Crown Court.

Similarly, and again notwithstanding specific exceptions, it is an offence to carry out any works to a tree in a Conservation Area with a trunk diameter greater than 75mm diameter at 1.5 height without having first provided the LPA with 6 weeks written notification of intent to carry out the works.

On many non-residential sites (excluding specific exemptions) there is also a statutory restriction relating to tree felling that relates to quantities of timber that can be removed within set time periods. In basic terms, it is an offence to remove more than 5 cubic metres of timber in any one calendar quarter without having first obtained a felling licence from the Forestry Commission.

Any proposed tree works that are planned to be carried out on site must be carried out in accordance with the statutory controls outlined. Therefore, we recommend that a further check is made with the LPA before any tree works are carried out.

Statutory Wildlife Protection

Although preliminary visual checks from ground level of likely wildlife habitats are made at the time of surveying, detailed ecological assessments of wildlife habitats are not made by the arboriculturist and fall outside of the scope for this report.

Trees which contain holes, splits, cracks and cavities could potentially provide a habitat for protected species such as bats in addition to birds and small mammals. It is advised that in some instances specialist ecological advice may be required. This may result in tree works being carried out following a detailed climbing inspection to the tree to ensure that protected species or their nests/roosts are not disturbed. If any are found, manager, site owner or consulting arboriculturist should be informed and appropriate action taken as recommended by the appointed Ecologist or the relevant Statutory Nature Conservation Organisation (SNCO): Natural England, Scottish Natural Heritage or Natural Resources Wales.

It is advised that tree/hedgerow works are carried out with the understanding that birds will generally nest in trees, hedges and shrubs between March and August. This time period only provides an indication of likely nesting times and as such diligence is required when undertaking tree works at all times.

Irrespective of the time of year and other than any actions approved under General Licence, it is an offence to intentionally kill, injure or take any wild bird or to intentionally take, damage or destroy the nest or eggs of any wild bird. Ideally, tree operations should be avoided during the likely bird nesting period. However, any tree works should always only be carried out following a preliminary visual check of the vegetation.

For information, the Wildlife and Countryside Act 1981 (as amended), The Countryside and Rights of Way Act 2000 (as amended) and the Conservation of Habitat and Species Regulations 2010, form the basis of the statutory legislation for flora and fauna in England and Wales. A different legislative framework applies in Scotland and Northern Ireland.
Any proposed tree works that are planned to be carried out on site must be carried out in accordance with any relevant statutory controls, outlined above.

DESIGN GUIDANCE

Approach

The approach adopts the guidelines set out in the British Standard BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations. The process is broken down to coordinate with the key elements within both the RIBA Plan of Work (2013) and British Standard 5837:2012 as set out in the table below:

Information Stage	RIBA Stage	BS5837:2012
Stage A – Tree Survey	2: Concept	4: Feasibility
Stage B – Arboricultural Impact Assessment	3: Developed design	5: Proposals

Information Stage	RIBA Stage	BS5837:2012
Stage C – Arboricultural Method Statement	4: Technical design	6: Technical Design
Stage D – Arboricultural Site Supervision	5: Construction	7: Demolition and construction

A hierarchical approach is adopted in order to achieve optimum use of and location of built structures. This is set out below:

Avoid

The starting point of Site layout design should be to avoid the RPA of retained trees and provide suitable clearance from above ground constraints [tree canopies]. Where possible building lines should be at least 2m outside the RPA to provide working space for construction. However, protection measures can be taken if such clearance is not achievable.

Mitigate

Where intrusion within the RPA is unavoidable then its impact on the tree can be mitigated by specialist measures:

Foundations that avoid trenching e.g. screw piles, suspended floor slabs or casting at ground level for lightweight structures such as bin and cycle stores.

Limited use may be made for parking, drives or hard surfaces within the root protection areas, subject to advice from a qualified arboriculturist. Cellular confinement systems that enable hard surfaces to be built above existing soil levels are acceptable methods subject to site-specific soil conditions.

Service runs that cannot be routed outside the RPA(s) can be installed by, for example, thrust boring, directional drilling, air excavation or hand digging. These operations often require supervision by the project arboriculturist.

Compensate

Replacement planting can ensure the continuity of tree cover where tree removal is unavoidable or desirable. Off-site provision may be considered in some circumstances but this will require negotiation with the local planning authority.

Considerations:

For proposed residential developments, consideration must be given to numerous factors future tree growth and orientation.

Tree constraints

Root Protection Areas:

With reference to BS5837:2012, a root protection area (RPA) is defined as "a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure should be treated as a priority". "**The default position [when considering design layout in relation to RPAs] should be that structures are located outside the RPAs of trees to be retained**".

BS5837:2012 states (4.6.2) that, "where pre-existing site conditions or other factors indicate that rooting has occurred asymmetrically, a polygon of equivalent area should be produced." The BS goes on to state that, "modifications to the shape of the RPA should reflect a soundly based arboricultural assessment of likely root distribution," and that any deviation from the original circular plot should take into account:

- Morphology and disposition of roots;
- topography and drainage;
- soil type and structure;
- the likely tolerance of the tree to root damage/disturbance.

Additional buffer zones beyond the RPA:

The following text is taken from the Standing Advice produced by the Forestry Commission and Natural England as included in the National Planning Policy Guidance:

'A buffer zone's purpose is to protect ancient woodland and individual ancient or veteran trees. The size and type of buffer zone should vary depending on the scale, type and impact of the development'.

Ancient woodland buffer:

'For ancient woodlands, you should have a buffer zone of at least 15 metres to avoid root damage. Where assessment shows other impacts are likely to extend beyond this distance, you're likely to need a larger buffer zone. For example, the effect of air pollution from development that results in a significant increase in traffic'.

Ancient and veteran tree buffer:
'A buffer zone around an ancient or veteran tree should be at least 15 times larger than the diameter of the tree. The buffer zone should be 5m from the edge of the tree's canopy if that area is larger than 15 times the tree's diameter'.

Above ground:
Above ground constraints posed by trees describe the capacity for trees to have an overbearing or dominating effect on new developments; usually post occupancy. Typical above ground constraints include a number or combination of inconveniences including shading, branch spread, movement of trees during strong winds and so on. If not adequately considered, above ground constraints can lead to repeated requests to fell or heavily prune retained and protected trees.

Shade:
Adverse shading and blocked views from windows raise concerns for incoming residents, which may lead to pressure to fell or remove trees in the future. Wherever possible it is advisable to arrange fenestration away from tree canopies to lessen the conflict, or increase window size to accommodate ambient light.
Conversely, appropriate designed development can use existing or new trees to create necessary and welcome shade and screening.
As part of the adopted approach the above considerations and constraints are assessed cumulatively in order to provide clear and site-specific advice on the areas of a site most suitable for the location of development.

Dependent on and nature of the Proposed Development, the Tree Survey and Constraints Plans may show the following:

Recommended Developable area - an advisory area defined in order to minimise arboricultural impacts using standard approaches to construction. Restricting Proposed Development to this area will limit the risk of harm to retained trees and of the Local Planning Authority objecting to the Proposed Development. It may be possible to propose development outside of this area but specific 'low impact' construction techniques may be needed recommended.

Recommended Buffer to development - similar to the Recommend Developable Area but defined as a line marking a suitable buffer to retained trees. More commonly used on large sites or sites where the presence of trees is localised.

Tree Opportunities

Depending on the scale of developments existing trees can often provide opportunities to enhance the existing arboricultural resource of a site by bringing it into good management or by putting in place remedial measures e.g. soil amelioration.

Appropriately designed new tree planting is extremely important in maintaining healthy and sustainable tree populations. For the reasons highlighted, new trees can bring many benefits to new developments. It is critical to the establishment of new tree planting that the locations, species and specification of new trees is appropriate. Subsequently the sourcing of high-quality stock, suitable planting and the provision of post planting maintenance are essential to allow new trees to establish and to allow them to mature.

Barton Hyett
Arboricultural Consultants

HOW TREE DAMAGE CAN OCCUR

Above the ground

Damage can occur as a result of knocks and scuffs, breakages of branches and/or tree trunks. This is often but not always associated with machine operations, groundworks excavations, tele handlers, high sided vehicles and crane use. Other forms of above ground damage include fixings to trunk and unauthorised cutting back of branches. Wounds will harm a tree's health and shorten its life by letting in disease-causing organisms.

Below the ground

It is often not appreciated that the majority of most tree roots are generally located within the top 600mm of the ground. On this basis it needs to be understood that damage to roots can occur in three ways:

- Root severance can occur as a result of, for example, soil stripping during site clearance or excavations.
- Root dieback and death can result from compaction of the soil. Compaction can occur as a result of vehicle weight, weight of stored materials or increased pedestrian access. Compaction crushes out soil pore space and prevents tree respiration from occurring (respiration requires gas exchange between the ground and the atmosphere). Compacted soil is denser and therefore inhibits/prevents any further new root growth.
- Pollution of the soil with chemicals such as oil or cement washings can destroy the soil environment, making it inhospitable for the tree cause causing it stress.

The effects of these impacts can be disfiguring to a tree's appearance and also weaken a tree making it more liable to attack by pest and diseases. In addition, root damage or death results in corresponding decline above the ground with dieback occurring within the tree crown.

The effects of damage to trees generally take some time to become fully apparent. In many cases, damaged trees decline slowly after the completion of a new development, until they eventually need to be removed due to ill health.

Tree protection barriers and load distributing 'no-dig' paths are specified in order to prevent soil compaction from taking place.

GENERAL SITE RULES FOR TREE PROTECTION

Do not independently carry out any activity that is at odds with scheme of tree protection. This is contained within an approved Arboricultural Method Statement (AMS) and accompanying Tree Protection Plan.

In simple terms: do not carry out any work within any Construction Exclusion Zone (CEZ) without prior liaison with the Project Arboriculturist and written authorisation from the Local Planning Authority.

Within the CEZ:

- No mixing of cement
- No soil/turf stripping, raising/lowering of ground levels (unless advised), deposit or excavation of soil or rubble
- No excavations for services or installation of services
- No storage of materials, machinery fuel, chemicals or other materials of any other description
- No parking/use of tracked or wheeled machinery
- No siting of temporary structures including hard standing areas, portaloos, site huts
- No lighting of fires or disposal of liquids
- Fires on site should be avoided if possible. Where they are unavoidable, they must not be lit in a position where heat could damage foliage or branches. Fires must be a minimum of 20m from the trunk of any retained tree or the centre line of any hedgerow to be retained
- No signs, cables, fixtures or fittings of any other description shall be attached to any part of a retained tree